

Proposal # **2001- E206** (Office Use Only)**PSP Cover Sheet** (Attach to the front of each proposal)

Proposal Title: Peytona Slough Restoration  
Applicant Name: Suisun Marsh Natural History Association/NGS  
Contact Name: Duke Foster  
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**Amount of funding requested:** \$ 995,243

Some entities charge different costs dependent on the source of the funds. If it is different for state or federal funds list below.

State cost \_\_\_\_\_

Federal cost \_\_\_\_\_

**Cost share partners?**\_\_\_\_ Yes X No

Identify partners and amount contributed by each \_\_\_\_\_

**Indicate the Topic for which you are applying (check only one box).**

- |  |  |
|--|--|
| <input type="checkbox"/> Natural Flow Regimes                          | <input type="checkbox"/> Beyond the Riparian Corridor                |
| <input type="checkbox"/> Nonnative Invasive Species                    | <input type="checkbox"/> Local Watershed Stewardship                 |
| <input type="checkbox"/> Channel Dynamics/Sediment Transport           | <input type="checkbox"/> Environmental Education                     |
| <input type="checkbox"/> Flood Management                              | <input type="checkbox"/> Special Status Species Surveys and Studies  |
| <input checked="" type="checkbox"/> Shallow Water Tidal/ Marsh Habitat | <input type="checkbox"/> Fishery Monitoring, Assessment and Research |
| <input type="checkbox"/> Contaminants                                  | <input type="checkbox"/> Fish Screens                                |

What county or counties is the project located in? Solano

What CALFED ecozone is the project located in? See attached list and indicate number. Be as specific as possible #2

**Indicate the type of applicant (check only one box):**

- |  |  |
|--|--|
| <input type="checkbox"/> State agency                    | <input type="checkbox"/> Federal agency        |
| <input type="checkbox"/> Public/Non-profit joint venture | <input checked="" type="checkbox"/> Non-profit |
| <input type="checkbox"/> Local government/district       | <input type="checkbox"/> Tribes                |
| <input type="checkbox"/> University                      | <input type="checkbox"/> Private party         |
| <input type="checkbox"/> Other: _____                    |  |

Indicate **the primary species which the proposal addresses (check all that apply):**

- |  |  |
|--|--|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | <input type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Winter-run chinook salmon   | <input type="checkbox"/> Fall-run chinook salmon   |
| <input type="checkbox"/> Late-fall run chinook salmon  | <input checked="" type="checkbox"/> Longfin smelt  |
| <input checked="" type="checkbox"/> Delta smelt  | <input type="checkbox"/> Steelhead trout           |
| <input checked="" type="checkbox"/> Splittail  | <input type="checkbox"/> Striped bass              |
| <input type="checkbox"/> Green sturgeon  | <input type="checkbox"/> All chinook species       |
| <input type="checkbox"/> White Sturgeon  | <input type="checkbox"/> All anadromous salmonids  |
| <input checked="" type="checkbox"/> Waterfowl and Shorebirds                                 | <input type="checkbox"/> American shad             |
| <input checked="" type="checkbox"/> Migratory birds  |  |
| <input type="checkbox"/> <b>Other</b> listed T/E species: _____                              |  |

Indicate **the type of project (check only one box):**

- |   |   |
|---|---|
| <input type="checkbox"/> Research/Monitoring                  | <input type="checkbox"/> Watershed Planning |
| <input type="checkbox"/> Pilot/Demo Project                   | <input type="checkbox"/> Education          |
| <input checked="" type="checkbox"/> Full-scale Implementation |   |

Is this a next-phase of an ongoing project?	Yes _____	No <u><b>x</b></u>
Have you received funding from CALFED before?	Yes _____	No <u><b>x</b></u>

If yes, list project title and CALFED number \_\_\_\_\_

Have you received funding from CVPIA before?	Yes _____	No <u><b>x</b></u>
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If yes, list CVPIA program providing funding, project title and CVPIA number (if applicable):  
\_\_\_\_\_

**By** signing below, the applicant declares the following:

- The truthfulness of all representations in their proposal;
- The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

**Duke Foster**

Printed name of applicant

  
Signature of applicant

## B. EXECUTIVE SUMMARY

Project Title and Applicant Name: Peytonia Slough Restoration Plan - Applicant is Suisun Marsh Natural History Association (SMNHA) in association with National Grant Services (NGS).

Amount Requested: \$995,243.00

C. Project Description and Ecological Objectives: Restoration, enhancement and long-term management of a heterogeneous wetland ecosystem consisting of tidal perennial aquatic habitat and saline emergent marshland at the north end of Peytonia Slough adjacent to the California Department of Fish and Game (CDFG) Peytonia Slough Ecological Reserve. Primary ecological objectives are:

- Re-establish the historic mix of wetland habitat types in the slough by removing fill deposited from federal ship channel dredging in the 1940s; restore more natural tidal influence and seasonal hydrological conditions.
- Provide expanded aquatic habitat for key fish species including Delta smelt, Splittail and Longfin smelt.
- Provide expanded habitat for a range of marsh species including migratory birds, and salt marsh harvest mouse.
- Significantly reduce the presence of invasive exotic plant species in the marsh.

### 1. Statement of Problem

#### a. Problem

**Existing Conditions-** The slough ecosystem in the vicinity of the SMNHA Wildlife Center has a long history of disturbance (Figures 1 and 2). Prior to 1943, much of the slough was filled for upland development. Former aquatic habitat and saline marshlands were dredged for creation of a ship channel and dredged spoils were deposited over project area marshland (SCFOSF 1989). Since that time, construction debris and additional dredged materials have been deposited in various locations in the marsh and slough. Most of the remaining marshlands are highly stressed due to highly-altered flow regimes caused by attenuation and blockage of tidal flows from fill and spoil deposits. Indicators of stress include extensive zones of invasive exotic plants (fennel, perennial pepperweed, yellow star thistle and giant reed), and the presence of zones of low-saturated, sparse halophytes. The site has been given a high priority for marsh restoration by Solano County (SCFOSF 1989).

In 1995, an approximate 2.52 acre portion of the original marsh was restored and enhanced as off-site mitigation for wetland impacts elsewhere by the Suisun City Redevelopment Agency (EP Associates 1992). The mitigation also provided partial tidal flushing to an additional 2.4 acres of existing marshland. Subsequent monitoring documented that the mitigation effort has

successfully re-established perennial tidal and saline marsh habitats (RMI 1997). Our proposal to CALFED represents a continuation of this pilot restoration effort on a much larger scale.

**Alteration of Flows** - Levees, spoil disposal and drainage ditches have combined to significantly alter the site's hydrology. With the exception of the newly-restored and enhanced wetlands, the project site receives little tidal inflow. Existing wetlands are largely dependent on localized surface runoff and infrequent tidal inundation during extremely high tides (>5.5 feet NGVD). Lack of tidal prism and hydraulic head have prevented the formation of narrow first and second order tidal channels that would serve to flush the site and provide important water bird feeding habitat and juvenile habitat for fish.

The lack of tidal flushing also inhibits the export of litter and nutrients which would benefit detrital and planktonic-based food chains in the adjacent slough ecosystem. In particular nutrient export would benefit annual phytoplankton blooms associated with the entrapment zone in nearby Suisun Bay (Arthur and Ball 1979; Peterson et al. 1975). Under the proposed project, fill will be removed and the area re-graded to elevations suitable for re-establishment of target tidal regimes. Tidal flow will be restored to the entire site through a dendritic network of created and evolving channels.

**Marshplain Isolation** - Fill and levees have served to physically isolate the site's remaining wetlands from the adjacent Peytonia Slough. The combination of physical isolation and altered hydrology has greatly reduced habitat quality for marsh-associated fauna. Feeding opportunities for shorebirds (e.g., mudflats) and waterfowl (e.g., productive channel banks, partially vegetated shorelines) are very limited.

**Migration Barriers** - Shallow, seasonally-inundated areas suitable as spawning and rearing habitat for fish is inaccessible due to the physical barriers of fill and perimeter levees. Removal of these barriers should promote access for spawning and juvenile rearing by Sacramento splittail. Rearing habitat will also be provided for Delta and Longfin smelt.

**Invasive Exotic Plants** - Much of the site's former wetlands are now dominated by dense stands of fennel, yellow star thistle, Bermuda grass, perennial pepperweed, and giant reed. Several individuals of mature tamarisk also occur. Removal of fill and restoration of tidal regimes should eliminate suitable growing areas for most of these infestations. Additionally, long-term management will include an exotic vegetation monitoring and control plan.

**Land Use/Urbanization** - Most of the northern reaches of Peytonia and Suisun Slough have been converted to urban uses. The project site forms the southern boundary of the limits of intensive urbanization by Suisun City. As such, it represents a high profile unit of the bay-delta system where the benefits of ecological enhancement will be readily viewed by the public. The presence of the SMNHA Wildlife Center will allow for well-managed public viewing of the restored marsh and will be an educational asset to local and regional school systems. Our restoration plan will include interpretive facilities (boardwalk, signage, bird viewing structures and Delta Interpretive Stations) to be operated and maintained by the SMNHA.

## b. Concept Model

**Proposed Restoration Approach:** Our fundamental project approach is to promote a self-sustaining marsh ecosystem through restoration of natural edaphic, topographic and tidal conditions within areas that have been filled or otherwise disturbed. We will rely on natural biotic and biological successional processes to promote gradual marsh regeneration, rather than attempting to create an "instant marsh" through intensive planting and seeding. Primary restoration methods will entail fill removal, regrading, native substrate restoration (where needed), and excavation of second and third order tidal channels.

Based on our previous experience with marsh restoration at the site and elsewhere in the San Francisco Bay region (RMI 1995, 1996, 1997), successful restoration design will be dependent on understanding elevation/hydrology relationships to vegetation colonization and succession. To that end, we will undertake hydrogeological and biological baseline studies within restored and non-restored portions of the site to reliably predict marsh regeneration patterns under various design alternatives. Alternatives and predicted outcomes will be reviewed with SMNHA and the key state and federal agencies (CDFG, USFWS, Corps, EPA) and a final design alternative will be selected.

Our fisheries biologist (Scott Cressey) will play an important role in wetland and design. Key rearing and spawning habitat dimensions will be integrated into the overall design to minimize

## c. Hypothesis being tested

The site has already been demonstrated to be suitable for wetland restoration. The proposed project represents a continuation of a recently completed restoration plan in which 2.52 acres of perennial marsh and saline wetland habitat have been restored. Our fundamental restoration technique (i.e., fill removal and grading to specified tidal range elevations) is well-founded in experience from numerous other restoration projects. The more challenging aspect of our restoration proposal will be to promote the development of a heterogeneous mix of marsh types with long-term resilience. To accomplish this we will conduct additional site analysis in combination with baseline and monitoring data from the completed restoration work as follows:

- A site-specific model of the relationship of marsh elevations to vegetation types will be prepared. The model will be based on existing topographic surveys and vegetation mapping within random locations throughout the site.
- A hydraulic analysis of the site will predict tidal damping and flow velocities throughout existing and proposed tidal channels under various design alternatives. Water surface elevation height duration curves will be determined to identify potential extent of tidal inundation. The potential for channel formation and migration will be determined based on hydrogeomorphic relationships for water velocities and substrate characteristics.

The project site currently supports three stressed habitat types as follows: 1) fully isolated seasonal marshes having no tidal connection, characterized by sparse halophytic wetland and ruderal species (salt grass, pickleweed, sow thistle, bermuda grass, rabbitsfoot grass); 2)

partially isolated perennial marshes subject to extremely muted tidal inflow, and characterized by bulrush, cattails and other emergents; and 3) ruderal uplands consisting of invasive exotic and annual grassland vegetation (e.g., fennel, yellow star thistle, wild oats, ripgut brome). Re-introduction of tidal flow in combination with fill removal and the availability of hydrophytic plant seed sources on-site will promote the re-establishment of the following habitats:

- ***Tidal Perennial Aquatic Habitat (Bulrush Series***, as per Sawyer & Keeler-Wolf 1995) - Approximately 5-8 acres of this habitat will be restored, depending on the final selected restoration design. Based on results from the restoration work already completed on-site, a rapid (2-4 years) colonization by the following species should occur: California bulrush, alkali bulrush, Olney's bulrush and broadleaf cattail. This habitat type will probably be associated with restoration elevations 0.5 foot or more below mean high water (MEIW).
- ***Saline Emergent Marshland (Saltgrass/Pickleweed Series***, as per Sawyer & Keeler-Wolf 1995) - Approximately 3-6 acres will be established. Based on completed restoration results, this habitat type should occur from slightly below MHW to at least 1.5 feet above MEIW. Dominant species will likely be saltgrass, pickleweed, fat hen, and brass buttons.
- ***Mudflats*** - This habitat type is expected to occur intermixed with tidal perennial aquatic habitat on slightly higher elevations where frequent exposure at low tides is likely.
- ***Tidal Channels*** - One or more primary tidal channel will be excavated which should allow the natural formation of shallow first and second order tidal channels throughout the marsh. Natural erosion processes will create steep under-cut banks providing feeding and cover habitat for shorebirds and waterfowl and rearing habitat for juvenile fish.

#### d. Adaptive Management

The restored marsh shall be monitored for a minimum 5-year period following restoration, in order to determine consistency with performance criteria. These criteria are designed to detect ecosystem development trends (e.g., tidal channel geomorphology) toward increased resilience and stability. This will allow annual management actions, as needed to incorporate refinements learned from each year's monitoring, as well as adjustments in the monitoring design to better detect ecosystem development processes.

The proposal is directly related to Goal 2 - Ecosystem Processes & Biotic Communities, Goal 4 - Habitats, Goal 5 - Non-native Invasive Species and Goal 6 - Sediment & Water Quality.

#### e. Educational Objectives

Our intent is to expose the private and public sector about critical needs associated with the Suisun Marsh and its' relationship with the entire Delta System. We will utilize handouts, interpretive signage, a marshlands trail, staging area(s), Delta Interpretive Stations (elevated viewing platforms) and hands-on displays at the Suisun Natural History Center.

Collaboration with local schools and colleges will create an atmosphere of learning and involvement with our project development. The students, faculty and general public will be involved in the process of the Suisun Marshes' historical use and associated problems.

The next phase of learning will entail current and proposed remedial action. All parties involved will achieve an understanding of active and restored biotic systems pertinent to the marsh.

## 2. Proposed Scope of Work

### a. Location and/or Geographic Boundaries of the Project

The proposed project is located in Solano County, immediately south of Suisun City at the northern end of Suisun Bay. The surrounding watershed drains to the Suisun Slough/Grizzly Bay system. Geographic boundaries, encompass lands owned by the SMNHA (17.17 acres) adjacent to the Peytonia Slough Ecological Reserve, managed by CDFG.

### b. Approach

Our fundamental project approach is to promote a self-sustaining marsh ecosystem through restoration of natural topographic, edaphic and tidal conditions within areas that were filled in the mid-1940s. Tasks are:

Task 1 - Baseline studies will expand an existing database from a smaller marsh restoration plan previously completed on the site. This will allow us to develop a site-specific empirical model of the relationships between topography, hydroperiod and vegetation colonization patterns and to model site hydrogeomorphology. (Est. Completion Date - April-June, 2001)

Task 2 Alternative restoration designs will be analyzed with respect to engineering feasibility, cost, consistency with environmental regulations, and attainment of biological goals. (Completion Date - June-July, 2001)

Task 3 Draft and final master restoration plans shall be prepared based on the selected alternative. Following federal/state agency review, a final plan will be prepared and environmental documentation/regulatory approval completed as needed. (Completion Date - June-December, 2001)

Task 4 A wetland mitigation bank will be established on the site. Mitigation bank payments will reimburse CALFED for up to 45% of project funding, and will also fund a long term operating endowment for the SMNHA Wildlife Center. We shall develop and seek approval for a mitigation banking agreement in accordance with Corps/USFWS guidelines. (Establishment Date March, 2002)

Task 5: Implementation - Construction bids shall be solicited in February, 2002 and work will be completed in the summer/fall, 2002. Monitoring will last a minimum of five years. We shall prepare detailed engineering plans and specifications for project implementation. Through our project engineer and biologists, we monitor all construction for consistency with the plans and field modifications as needed. An earthmoving firm with experience in wetland construction will be used. (completion of construction - October 2002)

### c. Monitoring and Assessment Plans

Monitoring (see below) will be conducted for a 5-year period following construction. Deliverables will be **(1)** as-built plans and report following completion of restoration area construction; **(2)** annual monitoring reports and mitigation bank accounting reports.

**Vegetation Monitoring:** We will employ monitoring methods that detect ecosystem development trends characteristic of maintenance and resilience. Such trends may include biomass productivity, soil organic matter accumulation, above ground hydrophytic phytomass. Minimum threshold values for discrete performance criteria will also be monitored. These will provide discrete measurements of habitat or community characteristics and constitute "milestones" of achievement through the restoration process. Values that likely will be monitored include percent wetland plant cover, species composition and hydrological regime. Reference vegetation monitoring sites will be located in adjacent Peytonia Slough tidal marsh areas.

**wildlife and Fisheries Monitoring:** Wildlife monitoring will focus on bird utilization and nesting in the restoration area. The ecological development of the mitigation site will be monitored using a relative numbers index of species-use (species richness), species numbers (species diversity) and species similarity indices plotted over time and compared to the reference site. Reference site habitats will be chosen to approximate the structure and functions of the completed development of the mitigation site. Avian counts will assess both species presence and numbers. Relative values of species richness, species diversity, species frequency and species similarity coefficients (Ludwig and Reynolds 1988) will be generated. As the wetland habitat values develop on the site, some or all of these indices should begin to increase and converge toward the values generated on the reference site over the course of the five year monitoring horizon. All data will be analyzed on a seasonal basis to reduce the influence of annual variation due to seasonal migration. A plot of these values from the mitigation site at year five should show a positive slope, and as such, the ecological development of the site can be inferred to be converging toward an acceptable final habitat configuration.

A fisheries monitoring plan will be implemented to develop an index of population size and age class structure in the marsh. Mark recapture or catch-per-unit-effort (CPUE) techniques will be applied in concert with electrofishing of tidal channels. All monitoring work will be conducted in accordance with USFWS protocols and the necessary endangered species permits will first be obtained.

### d. Data Handling and Storage

Data will be summarized and discussed in a baseline conditions report, as well as in the annual and final reports. (2) AutoCAD-based vegetation and topographic maps in hard copy and electronic formats will also be provided. Finally an electronic database in Microsoft Excel or Access for all hydrological and biological data will be submitted.

### e. Expected Products/Outcomes



Expected deliverables are described above under each task and under the Monitoring Plan discussion. The expected outcome is a fully restored, tidally-connected and self-sustaining marsh ecosystem encompassing 11.4 acres, that will become an integral part of Peytonia Slough.

#### **f. Work Schedule**

The proposed work schedule is shown in Figure 3,

#### **g. Feasibility**

The site has already been demonstrated to be suitable for wetland restoration. The proposed project represents a continuation of a recently completed restoration plan in which 2.52 acres of perennial marsh and saline wetland habitat have been restored. Our fundamental restoration technique (i.e., fill removal and grading to specified tidal range elevations) is well-founded in experience from numerous other restoration projects. The more challenging aspect of our restoration proposal will be to promote the development of a heterogeneous mix of marsh types with long-term resilience. To accomplish this we will conduct additional site analysis in combination with baseline and monitoring data from the completed restoration work, as discussed above under "Hypothesis Being Tested."

The project site is owned by the SMNHA which is a co-sponsor of this proposal. A portion of the site's wetlands have been successfully restored under Corps of Engineers Permit 19097E60. A Corps of Engineers wetland jurisdictional determination was approved for the entire site as part of that process. This determination will be updated as needed. Given the previous regulatory approval and success of wetland restoration on the site, the proposed project has a strong chance of being successful. The adjacent property owner (CDFG Peytonia Slough Preserve) is satisfied with the results of the completed restoration on the site and will be regularly consulted as part of the plan development process. The concept of establishing a wetland mitigation bank for the site is consistent with Corps San Francisco District policy. Other key regulatory agencies (USFWS, EPA, CDFG) are encouraging the establishment of mitigation banks (Federal Register 1995

### **D. Applicability to CALFED ERP Goals and Implementation Plan and CVPIA Priorities**

#### **1. ERP Goals and CVPIA Priorities**

The project will have the following goals that are consistent with CALFED ERP Goals and CVPIA Priorities:

**Restore Altered Flows** - Levees, spoil disposal and drainage ditches have combined to significantly alter the site's hydrology. With the exception of the newly-restored and enhanced wetlands, the project site receives little tidal inflow. Existing wetlands are largely dependent on localized surface runoff and infrequent tidal inundation during extremely high tides (>5.5 feet NGVD). Lack of tidal prism and hydraulic head have prevented the formation of narrow first and

second order tidal channels that would serve to flush the site and provide important water bird feeding habitat and juvenile habitat for fish.

The lack of tidal flushing also inhibits the export of litter and nutrients which would benefit detrital and planktonic-based food chains in the adjacent slough ecosystem. In particular nutrient export would benefit annual phytoplankton blooms associated with the entrapment zone in nearby Suisun Bay (Arthur and Ball 1979; Peterson et al. 1975). Under the proposed project, fill will be removed and the area re-graded to elevations suitable for re-establishment of target tidal regimes. Tidal flow will be restored to the entire site through a dendritic network of created and evolving channels.

**Reduce Marshplain Isolation** - Fill and levees have served to physically isolate the site's remaining wetlands from the adjacent Peytonia Slough. The combination of physical isolation and altered hydrology has greatly reduced habitat quality for marsh-associated fauna. Feeding opportunities for shorebirds (e.g., mudflats) and waterfowl (e.g., productive channel banks, partially vegetated shorelines) are very limited.

**Reduce Migration Barriers** - Shallow, seasonally-inundated areas suitable as spawning and rearing habitat for fish is inaccessible due to the physical barriers of fill and perimeter levees. Removal of these barriers should promote access for spawning and juvenile rearing by Sacramento splittail. Rearing habitat will also be provided for Delta and Longfin smelt.

**Manage Invasive Exotic Plants** - Much of the site's former wetlands are now dominated by dense stands of fennel, yellow star thistle, Bermuda grass, perennial peppertweed, and giant reed. Several individuals of mature tamarisk also occur. Removal of fill and restoration of tidal regimes should eliminate suitable growing areas for most of these infestations. Additionally, long-term management will include an exotic vegetation monitoring and control plan.

**Protect Natural Areas from Land Use/Urbanization Impacts** - Most of the northern reaches of Peytonia and Suisun Slough have been converted to urban uses. The project site forms the southern boundary of the limits of intensive urbanization by Suisun City. As such, it represents a high profile unit of the bay-delta system where the benefits of ecological enhancement will be readily viewed by the public. The presence of the SMNHA Wildlife Center will allow for well-managed public viewing of the restored marsh and will be an educational asset to local and regional school systems. Our restoration plan will include interpretive facilities (boardwalk, signage, bird viewing structures) to be operated and maintained by the SMNHA.

## **2. Relationship to Other Ecosystem Restoration Projects**

The proposed project represents a continuation of a recently completed marsh restoration plan in which 2.52 acres of perennial marsh and saline wetland habitat in Peytonia Slough have been restored. It will contribute to CALFED's overall goals and projects that will enhance and restore the Suisun Marsh/Grizzly Island ecosystem complex.

## **3. Requests for Next-Phase Funding**

We have not received funding for this project.

#### 4. Previous Recipients of CALFED or CVPIA funding

The applicant has not been a recipient of previous CALFED or CVPIA funding

#### 5. System-Wide Ecosystem Benefits

The project is fully compatible with CALFED goals. It will provide substantial ecological benefits to the Peytonia Slough ecosystem, and it will benefit priority species (Delta smelt, Splittail, migratory birds) and priority habitats (tidal perennial aquatic habitat, saline emergent marsh).

As discussed in ERP Goals and CVPIA Priorities, the project will restore altered flows, reduce marshplain isolation, reduce migration barriers, manage invasive exotic plants and protect natural areas from land use/urbanization impacts. With these restoration activities, a direct benefit will arise which will create cohesiveness with regional and delta wide ecosystems.

#### E. Qualifications

The Suisun Marsh Natural History Association (SMNHA) and National Grant Services (NGS) are jointly proposing to implement the restoration the Peytonia Slough project. LSA Associates, Inc. and its subcontractors will conduct all design, implementation and monitoring work. George Molnar of **LSA** will oversee the activities of the biological, engineering, and planning staff. In addition to LSA's technical and management staff other participants in the restoration planning, construction, and monitoring include Scott Cressey (fisheries), Andy Leahy, P.E. (civil engineering) and Balance Hydrologics (hydrology).

George Molnar, LSA Project Manager is a wetlands ecologist who has designed and implemented regional wetland restoration and management projects in California, Florida and Arizona. His projects have included salt and seasonal wetland restoration along San Francisco Bay, vernal pool creation and restoration projects on the Santa Rosa Plain and riparian restoration projects in Central and Northern California. He has also established regional mitigation banks that are currently restoring over 130,000 acres of wetland habitat. In association with Everglades National Park, he pioneered an innovative wetland restoration approach that is being used to restore over 5,000 acres of abandoned agricultural lands inside the Park. He was also a co-founder of both the California and Florida Exotic Pest Plant Councils.

**LSA's** Senior Wildlife Biologist, Steve Foreman, has led the development of major marsh restoration and management plans in the Bay Area for projects including Baumberg Tract (850 acres), Roberts Landing (132 acres), Deep Water Slough Island/Pacific Shores Center (140 acres), Palm Tract Waterfowl Mitigation and Management Plan (1200 acres). He is currently managing a multi-species Habitat Conservation Plan for Solano County. Mr. Foreman served as a technical team member of the San Francisco Bay Ecosystems Goals Project Mammals,

Amphibian, Reptile, and Invertebrate (MARI) group.

**Scott Cressey** is Scott Cressey, is a certified fisheries scientist, with over 25 years of professional experience in estuarine and freshwater fisheries biology and water quality studies. Mr. Cressey has been the principal investigator for numerous aquatic studies in the San Francisco Bay Estuary. He has been responsible for ten aquatic investigations in the Sacramento\San Joaquin River Delta, and for anadromous salmonid investigations on dozens of projects. During his previous fisheries studies in the Delta, he has assessed impacts to Delta smelt, longfin smelt, Sacramento splittail, and chinook salmon. Mr. Cressey has also been responsible for several ecological risk assessments for contaminated wetlands around San Francisco Bay.

Duke **Foster** of NGS has over 30 years of public service administering a variety of resource enhancement projects. He has extensive involvement with riparian restoration, stream and channel modifications, wetlands acquisition/restoration, fisheries enhancements and wildlife protection/acquisition. NGS coordinates project facilitation with appropriate and pertinent project staff at the site. Complete project administration, including fiscal control, is a process that NGS excels in for total project control and completion.

Andrew Leahy, **P.E.** is a consulting civil engineer with more than twenty years experience in the design and analysis of civil engineering improvements. Mr. Leahy has prepared engineering designs and environmental analyses for a wide range of projects throughout California, with a focus on stream restoration, wetlands enhancement and environmental mitigation. The scope of Mr. Leahy's practice includes wetlands mitigation, stream stabilization, stormwater management, habitat restoration, park development, roadway and earthwork design, water supply and distribution, hydrology/water quality analyses, soils/geotechnical evaluations, assessment district formation and all facets of civil engineering design and plan preparation.

Balance Hydrologics, Inc. is a specialized firm, recognized as being a leader in the analysis of wetland, channel and tidal dynamics. Balance has expertise in a wide range of subjects with special emphasis on the geomorphology and evolution of channel systems, hydraulics and sediment transport in natural channels, as well as water and sediment quality. They follow a problem-solving strategy that is based upon a focused technical approach allowing consideration and integration of multiple technical issues that leads to a fundamental understanding of the hydrologic and hydraulic setting of each project. This technical approach includes, when suitable, the use of advanced technologies in monitoring and telemetry to provide clients with accurate and efficient data collection.

**Kimball** Island Mitigation Bank, Sacramento County, CA (Greg **DeYoung** or **Steve Morgan**, Wildlands Inc. 976-337-8870). Developed hydrologic criteria for the restoration plan that addressed channel stability and potential estuarine sedimentation or scouring at Kimball Island near Antioch. This site is considered to be an ideal site for estuarine wetlands because the "mixing zone" at the confluence of the Sacramento and San Joaquin Rivers is habitat for special-status species, including both Delta smelt and chinook salmon. The study approach focused on emulation of stable channels at the adjacent Sherman Island Wildlife Refuge, combined a comparative analysis of channel changes visible in historic maps and aerial photographs, with

field measurements of hydraulic geometry and velocities in first-and second-order channels on both islands.

**Benicia** Tidal Wetlands Enhancement, City of **Benicia**, California (Michael Alvarez, City of **Benicia** Parks & Community Services, **707-746-4285**). Provided hydrologic and geomorphic studies to support efforts to increase tidal influences, promote the development of a natural tidal channel morphology, and limit sedimentation problems. Key features of the project included the need to accommodate the large quantities of woody debris that are associated with flood flows leaving the Sacramento-San Joaquin Delta and sensitivity to the possible presence of hazardous materials associated with previous industrial uses at the site.

Baumberg Tract Restoration (Carl **Wilcox**, California Department of Fish and Game, **7329 Silverado** Trail, **Napa**, California **94558, 707/944-5500**). Prepared a plan to restore the 850-acre Baumberg Tract to salt marsh and seasonal wetlands in Hayward, California. Extensive hydrological modeling is being conducted to predict tidal regimes under various design alternatives.

Roberts Landing Wetland Mitigation *and* Enhancement *Plan* (**John** Hughes, Citation Homes Central, **Post** Office Box **58177**, Santa Clara, **CA 95050-8771, 408/985-000**). Designed and is implemented a wetland mitigation plan that is restoring salt marsh in 136 acres of a diked historic bayland in San Francisco Bay. The project involved extensive fill removal, hydrological modeling and tidal channel construction, as well as habitat enhancement for shorebirds and salt marsh harvest mouse.

Pacific Shores Center Wetland *Enhancement and Mitigation* Plan (Peter Brandon, Pacific Shores Center, dba Koll investment *Management*, Three **Embarcadero** Center, Suite **980**, San Francisco, **CA 94111, 415/772-5999**). Designed a mitigation plan, currently undergoing final regulatory approval, that restores and enhances a mosaic of habitat types (salt marsh, salt pan, tidal channel and transitional uplands) on the nearby 140-acre Deepwater Slough Island adjacent to the National Wildlife Refuge. The plan is currently being constructed.

**Burdell** Ranch Wetland Conservation Bank (Mount **Burdell** Enterprises, James **McKenney**, **880 Las Gallinas** Avenue, **San** Rafael, **CA 94903, 415 479-4053**). Designed a wetland conservation bank, and associated management plan and banking agreement, on 132 acres of private land in northern Marin County that is currently under review by state and federal regulatory agencies. The conservation bank is designed to restore and enhance perennial and seasonal wetland functions and values to an area of diked historic baylands which have been used for livestock grazing and dry-land agriculture for the last 100 years. The conservation bank agreement provides the landowners an economically viable use of their lands while enhancing the diversity, extent, and quality of wildlife and wetland habitats on these lands, as well as adjacent state lands.

Richmond Parkway *Wetland* Mitigation *Plan and* Permitting, **1991 - Present**. *Client* Contact Marilyn Williams **Harang**, **Public Works** Department, City of Richmond, **CA (now** at Public Works Department, City of Redwood City, **6501780-7475)**. Prepared a tidal wetland mitigation and monitoring plan, conducted wetland delineations and endangered species

surveys, and obtained Corps and BCDC permits for this 7.3-mile roadway, which includes bridges across two large creeks. The approved mitigation plan ~~created~~/restored tidal salt marsh suitable for clapper rails, black rails, and salt marsh harvest mice, all of which were resident in the adjacent natural marsh.

#### F. Costs

##### 1. Budget

A detailed project budget is provided in Tables 1-11. The total project budget, including construction and five years of monitoring and maintenance is \$995,243.00.

##### 2. Cost-sharing

Cost-sharing will be accomplished through the proposed mitigation bank. Once approved and operating successfully, the bank will provide a total of \$342,000 in reimbursement funds to CALFED.

#### G. Local Involvement

The following local entities will be involved or will benefit from this project:

- The City of Suisun, which has already used the site for off-site wetland mitigation purposes, recognizes that Peytonia Slough and the greater Suisun Marsh ecosystem is an invaluable natural asset (City of Suisun 1992). The restoration of the degraded portions of Peytonia Slough adjacent to the city's historic downtown/waterfront area will nicely complement the city's on-going redevelopment efforts.
- The Peytonia **Slough** Ecological Reserve lies immediately adjacent to the project site. The restoration of an 11.4 acre wetland with benefits for CALFED priority species will clearly enhance the overall ecological value of the reserve. Moreover, it may be possible in later years to extend the restoration effort to include an approximate 15 acre highly-disturbed fill area located within the Peytonia Slough Reserve adjacent to the project site.
- The Suisun Marsh Protection District will benefit from the continued restoration of Peytonia Slough which forms the northern limits of the District. The project area represents "dead-end" slough habitat which has been identified by CALFED as a high priority for improving spawning and rearing of sustainable fish populations (CALFED 1996).
- Local and regional **schools** already benefit from the environmental education opportunities presented by the SMNHA Wildlife Rehabilitation Center. The proposed project will enhance these benefits by improving available funding for the Center and by greatly enhancing marsh and wildlife interpretive infrastructure at the site. Our project plan will include improved trails, a boardwalk and interpretive signage.

- Opportunities for birdwatching and nature study in the marsh will also be enhanced by construction of delta interpretive stations (elevated platforms) at the project site.

#### **H. Compliance with Standard Terms and Conditions**

Applicant will comply with state and federal standard terms provided:

- Term of Contract: All parties reserve the right to adjust billing rates for project years exceeding one year duration.
- All parties request a waiver of consequential damages as an additional condition.
- All parties request that any retention be paid upon submittal of final product deliverables.
- All parties request standard *force majeure* relief

#### **I. Literature Cited**

(Please see Appendix C)

#### **J. Threshold Requirements**

(Please see attachments)

**TABLE 1. PROJECT BUDGET (2001) - PEYTONIA SLOUGH RESTORATION PROJECT ~ LABOR**

	Molnar	Foreman	Budelsky	Schmoldt	Kingma	CAD	Cerical	SMNHAINGS
<b>Direct Salary and Benefits</b>	\$34.65	\$41.51	\$19.50	\$20.74	\$15.65	\$22.96	\$15.40	\$32.50
<b>Task 1: Baseline Studies</b>								
1A: Hydrological Analysis	4	4	0	0	0	0	0	0
1B: Topographic Analysis	4	8	16	0	8	0	0	0
1C: Vegetation Analysis	16	4	24	0	16	0	0	0
1D: Baseline Report Preparation	24	8	24	0	16	24	8	0
<b>Task 2: Alternative Designs</b>								
2A: Engineering Feasibility	4	4	0	0	0	0	0	0
2B: Hydrological Feasibility	4	4	0	0	0	0	0	0
2C: Biological Benefits Analysis	8	8	24	16	0	0	0	0
2D: Report Preparation	16	8	24	16	0	8	8	0
<b>Task 3: Restoration Plan</b>								
3A: Design Analysis	16	8	24	8	0	0	0	0
3B: Design Drawings	8	0	16	0	0	40	0	0
3C: Plan Preparation	24	16	40	8	0	0	8	0
3D: Agency Coordination	24	18	0	0	0	0	8	0
3E: CEQA/NEPA/EA	40	8	40	8	8	8	8	0
<b>Task 4: Wetland Mitigation Bank</b>								
4A: Memorandum of Agreement	16	8	0	0	0	0	0	0
4B: Management Plan	20	8	0	0	0	0	0	0
4C: Agency Coordination	24	4	0	0	0	0	0	0
4D: Reporting	16	4	0	0	0	0	8	0
<b>Task 5: Implementation &amp; Monitoring</b>								
5A: Construction Plans and Specs	4	4	8	0	0	0	0	0
5B: Construction Oversight & Monitoring	4	4	48	16	24	0	0	0
5C: Biological Enhancements	4	4	8	16	8	0	0	0
5D: Maintenance	4	4	24	8	8	0	0	0
5E: Monitoring Data Collection	8	0	70	8	24	0	0	0
5F: Account Management	16	0	0	0	0	0	8	0
5G: Reporting	40	8	40	0	8	24	8	0
<b>Task 6: Collaboration &amp; Education</b>								
6A: Program Development	0	0	0	0	0	0	0	160
6B: Program/Facilities Design	0	0	0	0	0	0	0	30
6C: Fiscal Management	0	0	0	0	0	0	0	45
6D: Agency Coordination	0	0	0	0	0	0	0	55
6E: Reporting	0	0	0	0	0	0	0	50
<b>Total Hours</b>	348	146	430	104	120	104	64	340
<b>Subtotal Direct Labor</b>	\$12,058	\$6,060	\$8,385	\$2,157	\$1,878	\$2,388	\$986	\$11,050
<b>Overhead</b>	\$22,742	\$11,459	\$15,265	\$4,603	\$5,322	\$4,892	\$1,894	\$19,890
<b>Subtotal Direct Labor &amp; Overhead</b>	\$34,800	\$17,520	\$23,650	\$6,760	\$7,200	\$7,280	\$2,880	\$30,940
							<b>Total =</b>	<b>\$131,029</b>



**TABLE 2. PROJECT BUDGET (2002) - PEYTONIA SLOUGH RESTORATION PROJECT - LABOR**

	Molnar	Foreman	Budelsky	Schmoldt	Kingma	CAD	Cerical	SMNHNNGS
<b>Direct Salary and Benefits</b>	<b>\$36.38</b>	<b>\$43.59</b>	<b>\$20.48</b>	<b>\$21.78</b>	<b>\$16.43</b>	<b>\$24.11</b>	<b>\$16.17</b>	<b>\$32.50</b>
<b>Task 5: Implementation &amp; Monitoring</b>								
5A: Remedial Actions	16	12	16	0	8	0	0	0
5B: Exotic Vegetation Management	12	0	48	0	16	0	0	0
5C: Other Preserve Management	12	8	24	0	24	0	0	0
5D: Monitoring Data Collection	12	8	72	24	24	0	0	0
5G: Reporting	40	8	48	16	24	20	8	0
<b>Task 6: Collaboration &amp; Education</b>								
6B: Program/Facilities Design	0	0	0	0	0	0	0	40
6C: Fiscal Management	0	0	0	0	0	0	0	40
6D: Agency Coordination	0	0	0	0	0	0	0	40
6E: Reporting	0	0	0	0	0	0	0	85
<b>Total Hours</b>	<b>92</b>	<b>36</b>	<b>208</b>	<b>40</b>	<b>96</b>	<b>20</b>	<b>8</b>	<b>205</b>
<b>Subtotal Direct Labor</b>	<b>\$3,347</b>	<b>\$1,569</b>	<b>\$4,259</b>	<b>\$871</b>	<b>\$1,578</b>	<b>\$482</b>	<b>\$129</b>	<b>\$6,662</b>
<b>Overhead</b>	<b>\$6,313</b>	<b>\$2,967</b>	<b>\$7,753</b>	<b>\$1,859</b>	<b>\$4,471</b>	<b>\$988</b>	<b>\$249</b>	<b>\$11,992</b>
<b>Subtotal Direct Labor &amp; Overhead</b>	<b>\$9,660</b>	<b>\$4,536</b>	<b>\$12,012</b>	<b>\$2,730</b>	<b>\$6,048</b>	<b>\$1,470</b>	<b>\$378</b>	<b>\$18,654</b>
							<b>Total =</b>	<b>\$55,488</b>

**TABLE 3. PROJECT BUDGET (2003) - PEYTONIA SLOUGH RESTORATION PROJECT - LABOR**

	Molnar	Foreman	Budelsky	Schmoltdt	Kingma	CAD	Cerlcal	SMNHNNGS
Direct Salary and Benefits	\$38.12	\$45.66	\$21.45	\$22.81	\$17.22	\$25.26	\$16.94	\$32.50
Task 5: Implementation & Monitoring								
5A: Remedial Actions	8	4	8	0	8	0	0	0
5B: Exotic Vegetation Management	8	0	24	0	16	0	0	0
5C: Other Preserve Management	12	0	24	0	8	0	0	0
5D: Monitoring Data Collection	8	0	72	24	24	0	0	0
5G: Reporting	24	4	40	16	8	12	8	0
Task 6: Collaboration & Education								
6B: Agency Collaboration	0	0	0	0	0	0	0	20
6C: Fiscal Management	0	0	0	0	0	0	0	30
6E: Reporting	0	0	0	0	0	0	0	40
Total Hours	60	8	168	40	64	12	8	90
Subtotal Direct Labor	\$2,287	\$365	\$3,604	\$913	\$1,102	\$303	\$136	\$2,925
Overhead	\$4,313	\$691	\$6,560	\$1,947	\$3,122	\$621	\$260	\$5,265
Subtotal Direct Labor & Overhead	\$6,600	\$1,056	\$10,164	\$2,860	\$4,224	\$924	\$396	\$8,190
							Total =	\$34,414

TABLE 4. PROJECT BUDGET (2004) - PEYTONIA SLOUGH RESTORATION PROJECT - LABOR

	Molnar	Foreman	Budelsky	Schmoldt	Kingma	CAD	Cerical	SMNHNGS
Direct <b>Salary</b> and Benefits	\$39.85	\$47.74	\$22.43	\$23.85	\$18.00	\$26.40	\$17.71	\$32.50
Task <b>5</b> : Implementation & Monitoring								
5A: Remedial Actions	0	0	8	0	0	0	0	0
5B: Exotic Vegetation Management	4	0	24	0	8	0	0	0
5C: <b>Other</b> Preserve Management	8	0	16	0	8	0	0	0
5D: Monitoring Data Collection	8	0	72	24	24	0	0	0
5G: Reporting	16	4	40	8	8	2	8	0
Task <b>6</b> : Collaboration & Education								
<b>6B</b> : Agency Collaboration	0	0	0	0	0	0	0	20
6C: Fiscal Management	0	0	0	0	0	0	0	30
6E: Reporting	0	0	0	0	0	0	0	40
Total <b>Hours</b>	36	4	160	32	48	8	8	90
Subtotal Direct Labor	\$1,435	\$191	\$3,588	\$763	\$864	\$211	\$142	2,925
Overhead	\$2,705	\$361	\$6,532	\$1,629	\$2,448	\$433	\$272	5,265
Subtotal Direct <b>Labor &amp;</b> Overhead	\$4,140	\$552	\$10,120	\$2,392	\$3,312	\$644	\$414	\$8,190
							Total =	\$29,764

TABLE 5. PROJECT BUDGET (2005) • PEYTONIA SLOUGH RESTORATION PROJECT • LABOR

	Molnar	Foreman	Budelsky	Schmoldt	Kingma	CAD	Cerical	SMNHNGS
Direct Salary and Benefits	\$41.58	\$49.81	\$23.40	\$24.89	\$18.78	\$27.55	\$18.48	\$32.50
<b>Task 5: Implementation &amp; Monitoring</b>								
5A: Remedial Actions	0	0	8	0	0	0	0	0
5B: Exotic Vegetation Management	4	0	24	0	8	0	0	0
5C: Other Preserve Management	8	0	16	0	0	0	0	0
5D: Monitoring Data Collection	8	0	48	24	24	0	0	0
5G: Reporting	16	4	40	8	8	8	8	0
<b>Task 6: Collaboration &amp; Education</b>								
66: Agency Collaboration	0	0	0	0	0	0	0	20
6C: Fiscal Management	0	0	0	0	0	0	0	30
6E: Reporting	0	0	0	0	0	0	0	40
Total Hours	36	4	136	32	40	8	8	90
Subtotal Direct Labor	\$1,497	\$199	\$3,182	\$796	\$751	\$220	\$148	\$2,925
Overhead	\$2,823	\$377	\$5,794	\$1,699	\$2,129	\$452	\$284	\$5,265
Subtotal Direct Labor & Overhead	\$4,320	\$576	\$8,976	\$2,496	\$2,880	\$672	\$432	\$8,190
							TOTAL =	\$28,542

**TABLE 6. PROJECT BUDGET (2006) - PEYTONIA SLOUGH RESTORATION PROJECT - LABOR**

	Molnar	Foreman	Budelsky	Schmoldt	Kingma	CAD	Cerical	SMNH/NGS
<b>Direct Salary and Benefits</b>	\$43.31	\$51.89	\$24.38	\$25.93	\$19.56	\$28.70	\$19.25	\$32.50
<b>Task 5: Implementation &amp; Monitoring</b>								
5A: Remedial Actions	0	0	8	0	0	0	0	0
5B: Exotic Vegetation Management	0	0	16	0	8	0	0	0
5C: Other Preserve Management	8	0	16	0	0	0	0	0
5D: Monitoring Data Collection	8	0	48	24	24	0	0	0
5G: Reporting	24	4	64	8	8	16	12	0
<b>Task 6: Collaboration &amp; Education</b>								
6B: Agency Collaboration	0	0	0	0	0	0	0	30
6C: Fiscal Management	0	0	0	0	0	0	0	50
6E: Reporting	0	0	0	0	0	0	0	80
<b>Total Hours</b>	40	4	152	32	40	16	12	160
<b>Subtotal Direct Labor</b>	\$1,733	\$208	\$3,705	\$830	\$783	\$459	\$231	\$5,200
<b>Overhead</b>	\$3,267	\$392	\$6,745	\$1,770	\$2,218	\$941	\$444	\$9,360
<b>Subtotal Direct Labor &amp; Overhead</b>	\$5,000	\$600	\$10,450	\$2,600	\$3,000	\$1,400	\$675	\$14,560
							<b>TOTAL =</b>	<b>\$38,285</b>

TABLE 7. PROJECT BUDGET (2001) - PEYTONIA SLOUGH RESTORATION PROJECT - Subcontractors & Expenses

	Subcontractors				Other Direct Expenses					
	Balance Hydrologics	A. Leahy-Engineering	S. Cressey Fisheries	Construction Subcontractor	mileage @ 0.32/mile	printing/ copying	graphics supplies	field equipment	phone/fax	mail
<b>Task 1: Baseline Studies</b>										
1A: Hydrological Analysis	\$5,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1B: Topographic Survey	\$0	\$0	\$0	\$35,000	\$75	\$0	\$0	\$0	\$0	\$0
1C: Vegetation Analysis	\$0	\$0	\$0	\$0	\$75	\$0	\$0	\$0	\$0	\$0
1D: Baseline Report Preparation	\$2,500	\$0	\$2,500	\$0	\$0	\$250	\$75	\$0	\$100	\$40
<b>Task 2: Alternative Designs</b>										
2A: Engineering Feasibility	\$0	\$2,400	\$0	\$0	\$52	\$100	\$0	\$0	\$0	\$0
2B: Hydrological Feasibility	\$4,500	\$0	\$0	\$0	\$75	\$0	\$0	\$0	\$0	\$0
2C: Biological Benefits Analysis	\$0	\$0	\$1,520	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2D: Report Preparation	\$3,500	\$750	\$0	\$0	\$0	\$250	\$75	\$0	\$0	\$100
<b>Task 3: Restoration Plan</b>										
3A: Design Analysis	\$2,500	\$750	\$0	\$0	\$75	\$0	\$0	\$0	\$0	\$0
3B: Design Drawings	\$0	\$1,200	\$0	\$0	\$0	\$0	\$50	\$0	\$0	\$0
3C: Plan Preparation	\$2,500	\$0	\$2,500	\$0	\$0	\$0	\$150	\$0	\$0	\$0
3D: Agency Coordination	\$0	\$0	\$850	\$0	\$110	\$50	\$0	\$0	\$75	\$80
3E: CEQA/NEPA/EA	\$0	\$0	\$250	\$0	\$75	\$250	\$75	\$0	\$50	\$80
<b>Task 5: Implementation &amp; Monitoring</b>										
5A: Construction Plans and Specs	\$0	\$2,500	\$0	\$0	\$0	\$0	\$50	\$0	\$0	\$0
5B: Earthwork and Grading	\$0	\$0	\$0	\$427,216	\$0	\$0	\$0	\$0	\$0	\$0
5 C Construction Oversight	\$0	\$1,500	\$0	\$0	\$650	\$0	\$0	\$150	\$75	\$0
5D: Biological Enhancements	\$0	\$0	\$1,500	\$0	\$75	\$75	\$0	\$175	\$0	\$0
5E: Maintenance	\$0	\$0	\$0	\$0	\$75	\$75	\$0	\$175	\$0	\$0
5F: Monitoring Data Collection	\$0	\$0	\$2,500	\$0	\$75	\$75	\$0	\$175	\$0	\$0
5G: Reporting	\$2,000	\$1,000	\$1,500	\$0	\$0	\$250	\$50	\$0	\$50	\$150
<b>Task 6: Collaboration &amp; Education</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Subtotal Expenses</b>	<b>\$22,500</b>	<b>\$11,515</b>	<b>\$15,088</b>	<b>\$531,548</b>	<b>\$1,624</b>	<b>\$1,581</b>	<b>\$604</b>	<b>\$776</b>	<b>\$403</b>	<b>\$518</b>
										<b>TOTAL= \$586,258</b>

**TABLE 8. PROJECT BUDGET (2002-2006) - PEYTONIA SLOUGH RESTORATION PROJECT. Subcontractors & Expenses**

	Subcontractors				Other Direct Expenses					
	Balance Hydrologics	A. Leahy- Engineering	S. Cressey Fisheries	Construction Subcontractor	mileage @ 0.32/mile	printing/ copying	graphics supplies	field equipment	phone/fax	mail
<b>Task 5: Implementation &amp; Monitoring</b>										
5A: Remedial Work	\$2,500	\$2,500	\$0	\$12,500	\$250	\$0	\$0	\$0	\$0	\$0
5B: Exotic Vegetation Maintenance	\$0	\$0	50	\$0	\$450	\$0	\$0	\$300	\$0	\$0
5C: General Site Maintenance	\$0	\$0	\$0	50	\$150	\$0	50	\$300	\$0	\$0
5D: Monitoring Data Collection	\$12,500	\$0	524,000	\$0	\$950	50	\$0	5150	\$0	\$0
5E: Reporting	\$5,000	\$2,500	\$3,000	\$0	\$0	\$1,400	\$150	\$0	5250	5250
<b>Task 6: Collaboration &amp; Education</b>	\$0	\$0								
<b>Subtotal Expenses</b>	<b>\$20,000</b>	<b>\$5,750</b>	<b>\$31,050</b>	<b>\$14,375</b>	<b>\$2,070</b>	<b>\$1,610</b>	<b>\$173</b>	<b>\$863</b>	<b>\$288</b>	<b>\$288</b>
									<b>TOTAL =</b>	<b>\$76,465</b>

TABLE 9. PROJECT BUDGET - PEYTONIA SLOUGH RESTORATION PROJECT - ADDITIONAL COST ITEM		
Item	Description	cost
SMNHA Wildlife Center Endowment	Seed money from CALFED for long-term endowment to cover Wildlife center public education and marsh wildlife rehabilitation services. (Wetland mitigation bank will provide endowment funds between 2002-2006.)	\$12,500

TABLE 10. PROPOSED MITIGATION BANK INCOME AND REIMBURSEMENT SCHEDULE	
Anticipated Per Acre Mitigation Fee	\$65,000 per acre of mitigation credit for a total of \$741,000 for entire site.
Mitigation Fee Distribution:	
SMHNA Endowment	\$25,000 per acre for a total of \$285,000
CALFED Reimbursement	\$30,000 per acre for a total of \$342,000
Long-term Maintenance Fund	\$5,500 per acre for a total of \$62,700
Mitigation Bank Administration/Operation	\$500 per acre for a total of \$5,700
Anticipated Income Schedule <b>by</b> Year:	
2001-2002	\$130,000
2003	\$130,000
2004	\$227,500
2005	\$195,000
2006	\$58,500



**TABLE 11: PROJECT BUDGET SUMMARY - PEYTONIA SLOUGH RESTORATION PROJECT -  
TOTAL CALFED FUNDING REQUEST**

	2001	2002	2003	2004	2005	2006
<b>LABOR</b>	<b>\$131,029</b>	<b>\$55,488</b>	<b>\$34,414</b>	<b>\$29,764</b>	<b>\$28,542</b>	<b>\$38,285</b>
<b>EXPENSES AND SUBCONTRACTORS</b>	<b>\$586,256</b>	<b>\$76,465</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>SMNHA ENDOWMENT SEED MONEY</b>	<b>\$15,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>ANNUAL TOTALS</b>	<b>\$732,286</b>	<b>\$131,953</b>	<b>\$34,414</b>	<b>\$29,764</b>	<b>\$28,542</b>	<b>\$38,285</b>
				<b>TOTAL PROJECT =</b>		<b>\$995,243</b>

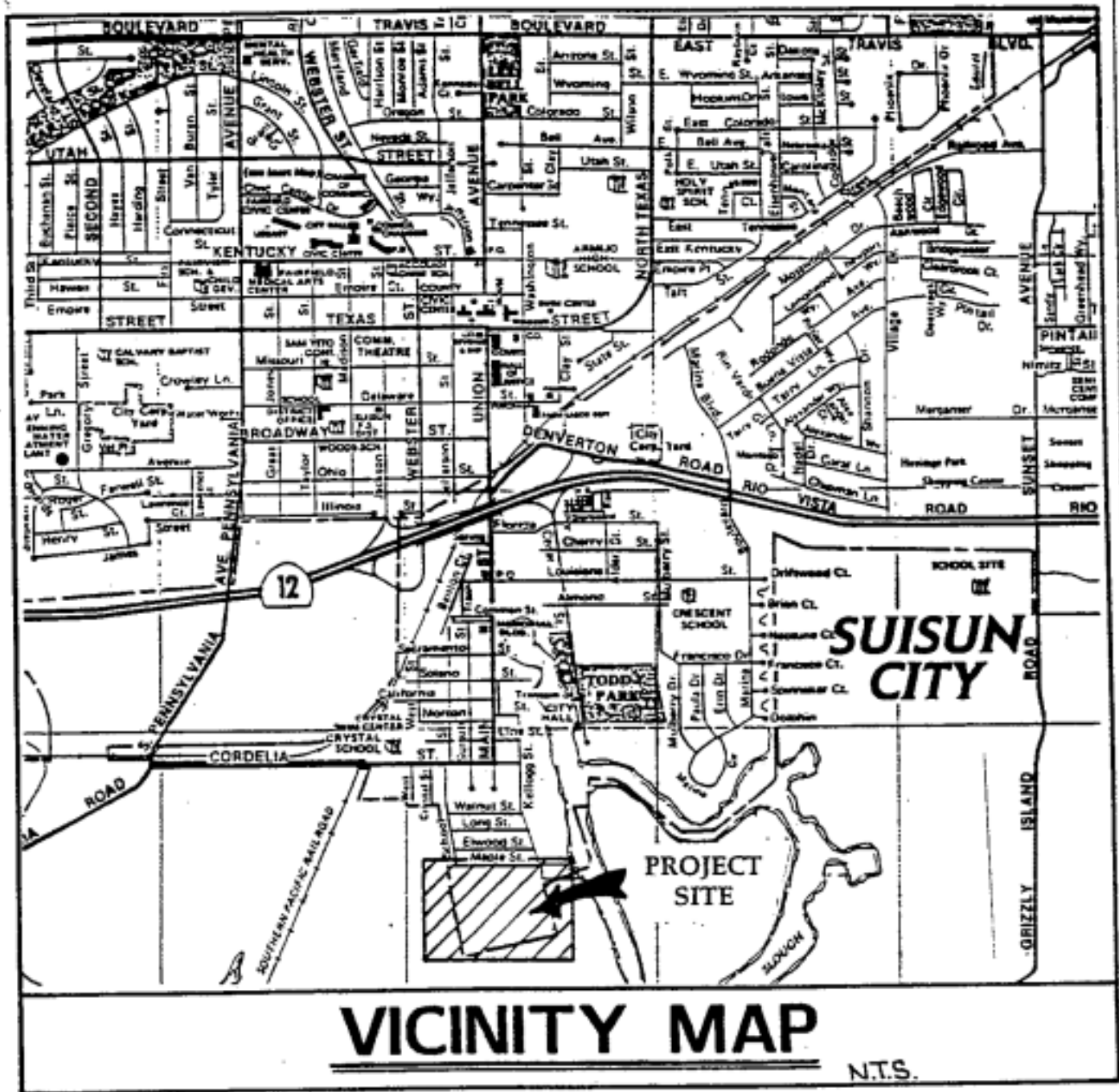
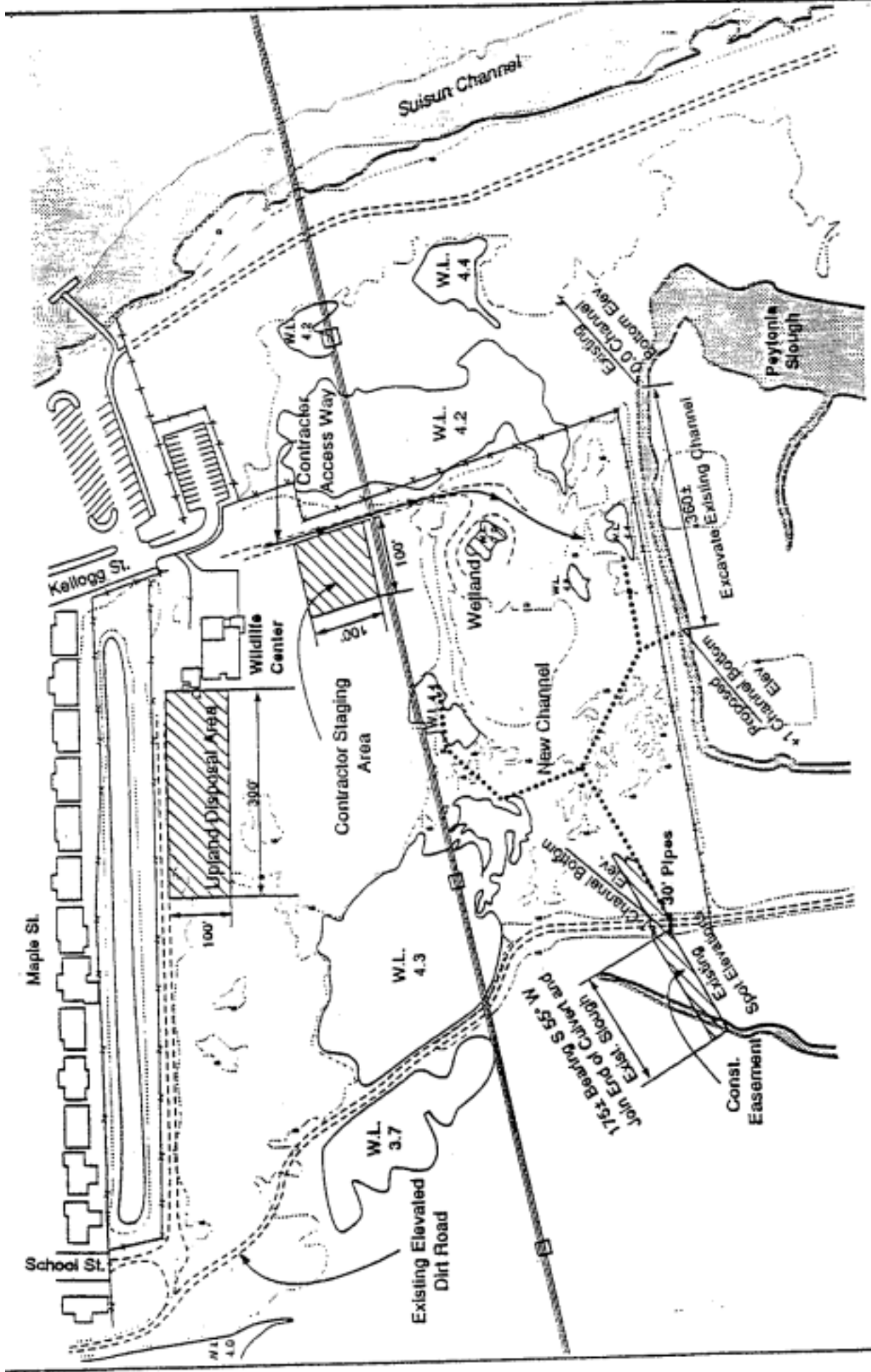


FIGURE 1

SMNHA  
LSA, NGS  
& RMI

CalFed Proposal:  
Peytonia Slough  
Restoration Plan

VICINITY MAP



Source: elp, 1991.

SMNHA  
LSA, NGS  
& RMI

CalFed Proposal:  
Peytonia Slough  
Restoration Plan

Scale in feet  
0 200

FIGURE 2

RESTORATION PLAN COMPLETED IN 1995

Figure 3. Peytonia Slough Marsh Restoration Project - Project Timeline

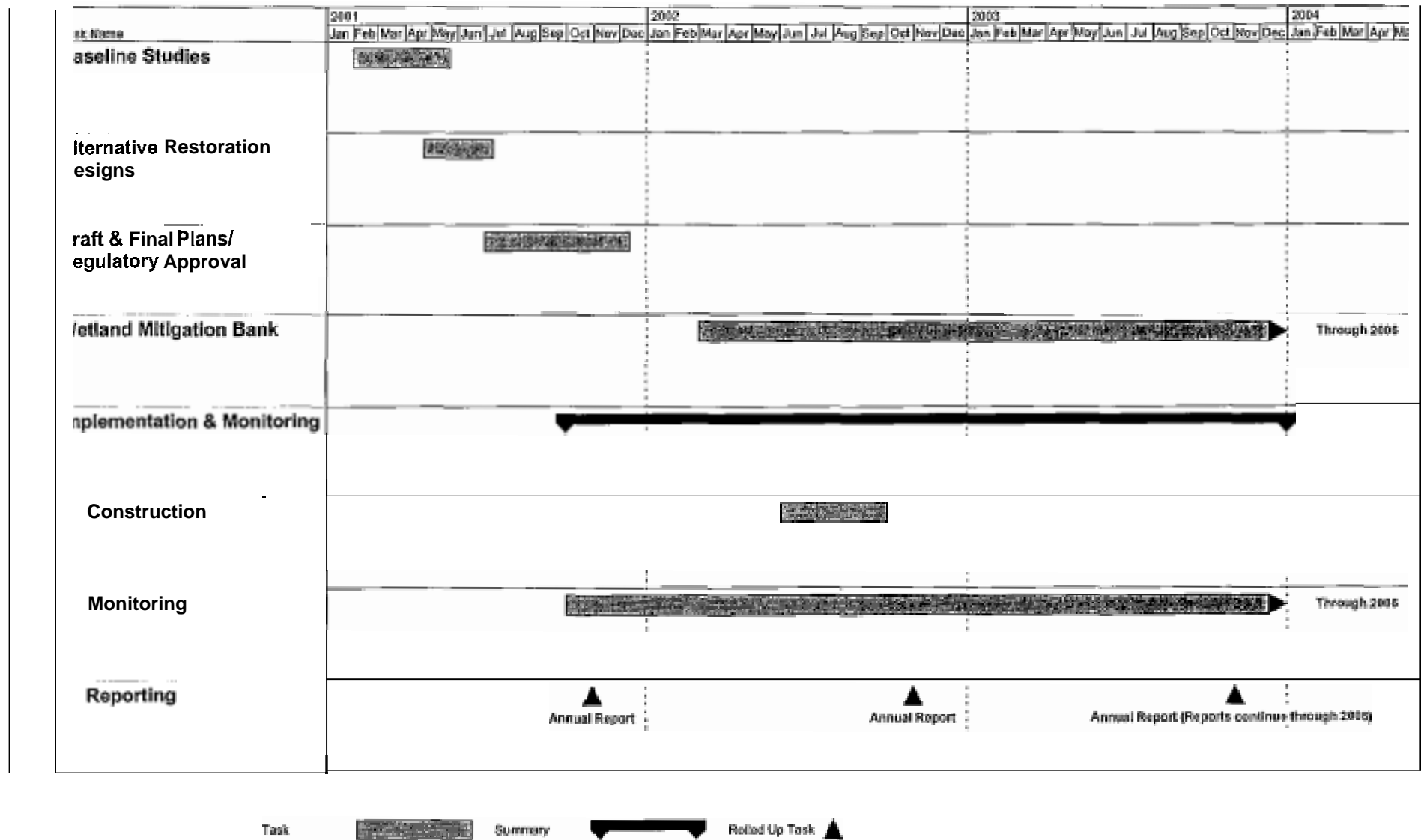
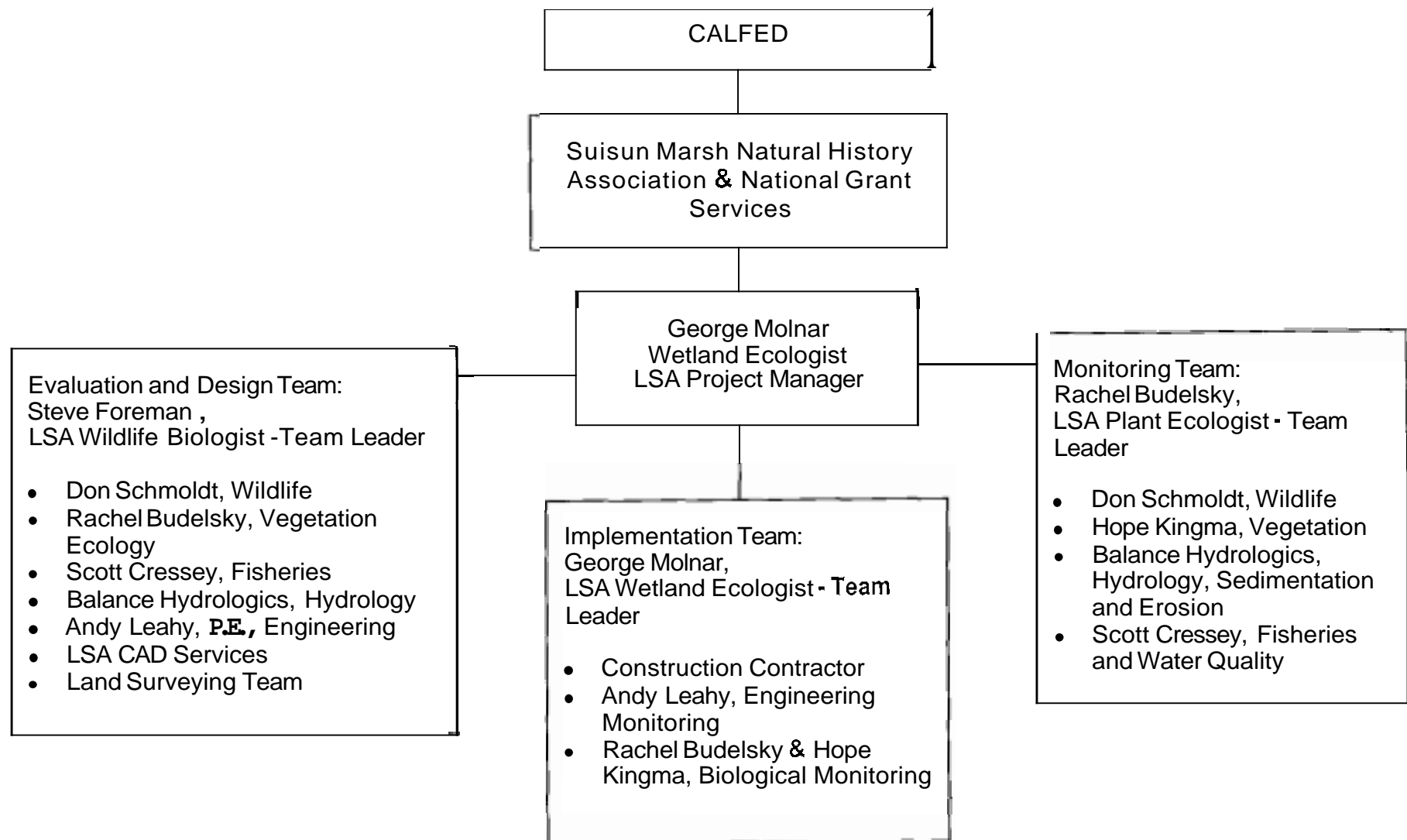


Figure 4. Peytonia Slough Restoration Project – Team Organization Chart



**APPENDIX A**  
**SUISUN MARSH NATURAL HISTORY ASSOCIATION INFORMATION**



## Suisun Marsh Natural History Association

# 20 years!

The beginnings of the SMNHA and the Wildlife Center were in 1975-76, when founders Jan White, Jerry and Sandy Emanuelson began to care for wildlife as an adjunct to the Fairfield Humane Society. Sandy had been a State Humane Officer since 1963, and she and Jerry had run the Contra Costa Humane Society. Wildlife seemed like a natural outgrowth of this work, especially since there was no existing way of caring for wild birds and animals from Solano County. Sandy and Jerry's kitchen became the first wildlife center, with Jan handling the arduous tasks of transport and logistics.

In 1976 Sandy completed her veterinary studies, and on June 21, 1977 the organization was incorporated as Solano County Wildlife Rescue Service - the first of three names to come. Original Board of Directors members

were President Jan White, Janice Magee, Rusty England, M. Clyde Low, Sandy Quintana, Dee Harlow, and Sandy Emanuelson, DVM.

The first Wildlife Center facility was a crumbling wooden house at 524 Delaware St. in Fairfield, given by Solano County in return for a humane animal trapping program.

Its amenities were non-existent to say the least, and started us on a constant effort of building, repairing and improving caging and facilities that continues today. In 1978 our name became more explanatory and more independent as Wildlife Rehabilitation Service, Inc.

For a short period we were forced to operate without a memorandum of understanding from the Calif. Dept. of Fish

... continued on page 2



The Suisun Wildlife Center Complex & Marsh Restoration

## 20<sup>th</sup> ANNIVERSARY

(from page 1)

& Game, which seriously resuicted what we were able to care for. A full permit was restored on Feb. 8, 1982, a year in which our name changed once more, to the Suisun Marsh Natural History Association.

1982 also brought one of the most difficult blows for the Association. when Dr. Sandra Emanueison. DVM. founder. Board member. and staff veterinarian. died at 44 of cancer. It was a loss from which we have never truly recovered. We were, however, fortunate in her successor. Dr. Steve Sanders was Sandy's partner, and took over the vital function of our veterinarian, in which capacity he not only provides us with expert medical care and advice but makes it possible for us to obtain many of our needed supplies.

A grant proposal by Executive Director Jan White enabled us in 1983 to begin construction on the first set of public access trails in the Suisun Marsh. These trails greatly assisted us in the environmental education program begun in 1978. and numbering over 6,000 participants annually by 1983. As the Suisun Marsh is the primary area of interpretation for our program. the trails completion in 1984 filled a pressing need.

Fundraisers were a major concern in

1984 as always, and we added the series of Rabies Clinics done in summer for Solano County to our Crafts Faire held in September and our Wildlife Walkathon. 1984 was almost over when on November 8 the USS Puerto Rican exploded off the coast loaded with oil and additives. Over 600 birds were oiled and many of our volunteers went to Fort Cronkite to assist in the cleaning effort. About 20 loons ana a few grebes. scoters. and fulmars came to our center. where warerbeds and a pool had to be provided for them.

1985 was a watershed year for the Association. Board President and Executive Director Jan White began veterinary college at UC Davis. and Education Director Monique Liguori took over as Execurive Director. Land acquisition and construction funding efforts were underway to build a new Wildlife Center, which was badly needed as City construction projects forced three moves in this year, including twice in one month.

Fortunately, in 1986 the State Coastal Conservancy granted funding for the land acquisition. and with the addition of construction funding through Fish & Game from the Environmenral License Plate Fund, we were ready to begin. Programs were continued and animals were transferred to alternate facilities for the short rime while we were without one. A contractor was selected and construction began at 1171 Kellogg St., Suisun. Many items were solicited and volunteers and Board members did much of the work to reduce costs.

(continued on page 3)

**The OTTER CHATTER** \* Vol. XX Issue 78  
Quarterly Membership Newsletter of SMNHA  
1171 Kellogg St., Suisun, CA 94585

### Otter Chatter Staff

EDITOR  
Monique Liguori  
PUBLICATION  
Tim Liguori  
ADVERTISING  
Don & June Gerhardt  
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Don & June Gerhardt



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compliments of  
Mark Stevenson  
Stevenson's Printers  
Vacaville, CA

**Volunteers are the Heart**  
of our success. If you are interested in  
\* helping our wildlife or  
\* teaching others about nature  
give us a call.  
**Join the cause !!**



## 20<sup>th</sup> ANNIVERSARY

(from page 3)

Director position. Having full-time Rehab Directors has enabled us to greatly improve both our volunteer **training** and care levels.

In 1992 an exciting newcomer to the Board of Directors was Murual of Omaha's Wild Kingdom co-host Peter Gros. Board members have contributed in great measure to the success of the organization over the years. Board member Lisa Burton created one of our most popular fundraisers in 1993 with the Baby Animal Shower, held in May. At this event we are able to show the public how we care for some of the baby animals we receive in large numbers in the spring and summer months.

A big step forward took place in 1993 as we undertook with the City of Suisun to restore tidal marshland on Wildlife Center property. Board President Jerry Emanuelson worked with the City to create this mitigation project, which now provides enhanced habitat for wildlife and will be part of our expanded rails system. A large exercise flight aviary for birds of prey was also completed in 1993.

The Association went on line in 1994 with Internet Web Pages, one of the first wildlife centers to do so thanks to the work of Board member Tim Liguori. Our over 40 web pages provide information on wildlife rehabilitation, natural history subjects and environmental education. An information source and guide for the public, the pages have been accessed by visitors from 27 countries, recognized by several rating organizations and featured on KRON-TV, Channel 4 in San Francisco. The Web Pages also include our quarterly newsletter, the Otter Charter. Find us at

<http://community.net/marsh>.

Peter Gros gave us a thrill in 1996 when he agreed to perform at "An Evening With Peter Gros" at the Fairfield Center for Creative Arts. Peter brought film clips and

bloopers from his trips for Mutual of Omaha, and presented many live animals, including a cheetah loaned by Marine World. It was a fun and informative evening for those lucky enough to be there, and a kind and generous gift of time from Peter.

Another boost for the organization in 1996 was the formation by Rehab Director Dana Rice and Volunteer Coordinator Melody Crinenden of Ollie's Angels, a comminee of volunteers with the goal of increasing outreach to the public and raising awareness of the Wildlife Center, which they have already done in many ways. With Center mascot Ollie the Otter (created by Board member Lisa Burton), the comminee brings information and fun to events all over Solano County.

So now in 1997 we find ourselves at 20 years. Much has been done which is not covered here, and much is still being done. New education programs, new cages and housing, fundraisers and special events continue all the time. The past 20 years has been very exciting - and the future looks even more promising. Join us for the next:

# 20 years!

## The Otter



## Nature Store

Richard M. Luck  
(707) 448-6469

360 Merchant Street  
Vacaville, CA 95688

## 20<sup>th</sup> ANNIVERSARY

(from page 2)

Animal care began in the new facility in 1987, which we named on completion: the Sandra Emanuelson DVM Memorial Wildlife Center.

Its 2000 square feet with exam room, predator and prey wards, isolation wards, kitchen, utility rooms, water bird room, radiology, pathology and Intern's residence, have been a dream come true. In 1988 Board members and volunteers constructed a large outside aviary for ducks, birds of prey and other species.

Education programs were continuing to grow as facilities did. In 1986 grant funding was applied for by Education Director Monique Liguori and Fairfield- Suisun Mentor Teacher

Diana Nolan to provide Suisun Marsh education to all third graders in the FFSS School District. New programs on Hummingbirds, Jepson Prairie vernal pools, and Rockville Hills Park were added. In 1988 the Suisun Marsh program was made part of the Fairfield-Suisun School District curriculum for the third grades. Diana Nolan also helped in 1989 to create "Pennies For Wildlife", a program where students can contribute to Wildlife Center costs. Today, we have surpassed 100,000 participants in our environmental education programs.

1990 saw the departure of Jan White as Board President and Jerry Emanuelson assumed that position. Jan's many accomplishments in wildlife care and oil spill work, as well as her work for the international Wildlife Rehabilitation Council and many other groups, have greatly benefited wildlife rehabilitation as a field.

A new milestone was reached in 1991 with the first full-time Rehabilitation Director. This provided badly needed supervision and continuity for animal care at the Center. In August 1992, Board member and volunteer Dana Rice took over the Rehabilitation

...continued on page 6



**Denny's** Vacaville  
1450 E. Monte Vista Rd.  
Ask for our 15%  
Discount V.I.P. card

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If you are interested in an advertisement please contact  
us at 429-HAWK  
WE WOULD LIKE TO ENCOURAGE our members  
to support our advertisers. They deserve our support!

**Wildlife Center Help Requests**

- Paper towels / Toilet paper
- Cloth towels (no rags please)
- Dawn liquid detergent
- Laundry soap / Bleach
- UNIMILK
- Hoes, Rakes, Shovels
- Dremel Drill (for nail filing)
- Heating Pads / Electric Fans
- HOT DOG Machine (vending)
- High clearance Lawnmower
- Gas Weedeater (for fire control)

Donations can be dropped off at the Wildlife Center  
- it all goes toward helping the animals!

**Give us your CANS & BOTTLES**  
We'll put them to good use!

## APPENDIX B

### Summary of Project Benefits with Respect to Primary Stressors

	Stressor				
	Stressor 1: Alteration of Flows	Stressor 2: Marshplain Isolation	Stressor 3: Migration Barriers	Stressor 4: Invasive Exotic Plant Infestations	Stressor 5: Land Use-Urbanization
Project Benefits	(Project will restore tidal flushing to entire site.)	(All isolating conditions on the site will be eliminated)	(Migration barriers into the marsh will be removed)	(Removal of fill and subsequent management plan will control exotic plants)	(Project will enhance public access for nature study and marsh viewing)
Restored and enhanced habitat for migratory and resident shorebirds, waterfowl and wading birds.	Removal of fill will promote priority habitats for these species (perennial aquatic, saline emergent marshland).	Access to restored and existing habitats will be improved.		Quality of existing and restored habitat will be enhanced and protected through invasive exotic vegetation management.	Historic wetlands adjacent to downtown Suisun City will be restored.
Restored and enhanced habitat for salt marsh harvest mouse	Growth of pickleweed marsh will be promoted. Very large size of surrounding marsh should make site suitable for this species.				
Spawning and juvenile habitat for Sacramento splittail	Shallow tidal channels and seasonally inundated marshes should provide good habitat for this fish species.		Fish migration into and out of dead end slough/marsh will be enhanced		

APPENDIX B  
Summary of Project Benefits with **Respect** to Primary Stressors

	Stressor				
	Stressor 1: Alteration of Flows  <i>(Project will restore tidal flushing to entire site.)</i>	Stressor 2:Marshplain Isolation  <i>(All isolating conditions on the site will be eliminated)</i>	Stressor 3: Migration Barriers  <i>(Migration barriers into the marsh will be removed)</i>	Stressor 4: Invasive Exotic Plant Infestations  <i>(Removal of fill and subsequent management plan will control exotic plants)</i>	Stressor 5: Land Use- Urbanization  <i>(Project will enhance public access for nature study and marsh viewing)</i>
<b>Project Benefits</b>					
<i>Juvenile habitat for Delta smelt and Longfin smelt</i>	Shallow tidal channels and seasonally inundated marshes should provide good habitat for these fish species.		Access barriers <b>(till)</b> for <b>fish</b> will be removed. Access into internal marsh will be enhanced		
<i>Enhanced detrital and nutrient exchange with Peytonia Slough and Grizzly Bay</i>	Improved tidal flushing should allow regular pulses of detrital and nutrient outflow.				

# APPENDIX B

## Summary of Project Benefits with Respect to Primary Stressors

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Project Benefits	(Project will restore tidal flushing to entire site.)	(All isolating conditions on the site will be eliminated)	(Migration barriers into the marsh will be removed)	(Removal of fill and subsequent management plan will control exotic plants)	(Project will enhance public access for nature study and marsh viewing)
Enhanced marsh interpretive benefits to the public					An interpretive infrastructure will be constructed. Proximity to Suisun City and association with the Wildlife center will provide a high profile project for CALFED.
Enhanced long-term marsh management	Improved habitat will benefit the adjacent CDFG Peytonia Slough Ecological Preserve and the greater Suisun Marsh Protection District.			Invasive exotic species will be eliminated from much of the site.	

## APPENDIX B

### Summary of Project Benefits with Respect to Primary Stressors

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Project Benefits	<i>(Project will restore tidal flushing to entire site.)</i>	<i>(All isolating conditions on the site will be eliminated)</i>	<i>(Migration barriers into the marsh will be removed)</i>	<i>(Removal of fill and subsequent management plan will control exotic plants)</i>	<i>(Project will enhance public access for nature study and marsh viewing)</i>
<i>Long-term source of funding for rehabilitation of marsh wildlife</i>					Mitigation bank will provide endowment for SMNHA Wildlife Center, which provides environmental education and wildlife rehabilitation benefits to the public.

## APPENDIX C

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# National Grant Services

Partners in Project Funding & Development

City of Suisun  
Planning Department  
701 Civic Center  
Suisun, CA 94585

May 10, 2000

To whom it may concern:

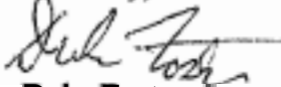
The Suisun Marsh Natural History Association, National Grant Services and LSA Associates, Inc. are proposing restoration to the Peytonia Slough. The following is an over view of the proposal being sent to CalFed for potential funding.

Project Description and Ecological Objectives: Restoration, enhancement and long-term management of a heterogeneous wetland ecosystem consisting of tidal perennial aquatic habitat and saline emergent marshland at the north end of Peytonia Slough adjacent to the California Department of Fish and Game (CDFG) Peytonia Slough Ecological Reserve. Primary ecological objectives are:

- Re-establish the historic mix of wetland habitat types in the slough by removing fill deposited from federal ship channel dredging in the **1940s**; restore more natural tidal influence and seasonal hydrological conditions.
- Provide expanded aquatic habitat for key fish species including Delta smelt, Splittail and Longfin smelt.
- Provide expanded habitat for a range of marsh species including migratory birds, and salt marsh harvest mouse.
- Significantly reduce the presence of invasive exotic plant species in the marsh

If funded, we will secure all appropriate permits. We also would appreciate your support for this worthwhile project.

Sincerely,



Duke Foster  
Project Coordinator



# National Grant Services

Partners in Project Funding & Development

Solano County  
Planning Department  
580 Texas  
Fairfield, CA 94533

May 10, 2000

To whom it may concern:

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- Provide expanded habitat for a range of marsh species including migratory birds, and salt marsh harvest mouse.
- Significantly reduce the presence of invasive exotic plant species in the marsh.

If funded, we will secure all appropriate permits. We also would appreciate your support for this worth while project.

Sincerely,



Duke Foster  
Project Coordinator

## NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-95) FMC

**National Grant Services****19221 RED HILL MINE ROAD, SUITE B**

COMPANY NAME

**PINE GROVE, CA 95665**

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance **with** Government Code Section 12990(a-f) **and** California Code of Regulations, Title 2, Division 4, Chapter 5 in **matters** relating to reporting requirements **and** the development, implementation **and** maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or **allow** harassment against any **employee** or **applicant** for employment because of sex, race, color, ancestry, **religious** creed, national **origin**, disability (including HIV and **AIDS**), medical condition (cancer), **age**, marital status, denial of family **and** medical **care** leave **and** denial of pregnancy disability leave.

**CERTIFICATION**

*I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below is made under penalty of perjury under the laws of the State of California.*

OFFICIAL'S NAME

Duke Foster

DATE EXECUTED

May 10, 2000

EXECUTED IN THE COUNTY OF

Amador

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE

Project Coordinator

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

National Grant Services

STATE OF CALIFORNIA

## NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 18 (REV. 3-85) (M/C)

COMPANY NAME

LSA

The company named above (hereinafter referred to as "prospective contractor") hereby certifies: unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

## CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

Steve Granholm STEVE GRANHOLM

OFFICIAL'S NAME

May 11, 2000

DATE EXECUTED

Steve Granholm

PROSPECTIVE CONTRACTOR'S SIGNATURE

EXECUTED IN THE COUNTY OF

Contra Costa County

PRINCIPAL

PROSPECTIVE CONTRACTOR'S TITLE

LSA ASSOCIATES, INC.

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Agreement No. \_\_\_\_\_

Exhibit \_\_\_\_\_

**STANDARD CLAUSES -  
SERVICE & CONSULTANT SERVICE CONTRACTS FOR \$5,000 & OVER WITH NONPUBLIC ENTITIES**

**Workers' Compensation Clause.** Contractor affirms that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor affirms that it will comply with such provisions before commencing the performance of the work under this contract.

**National Labor Relations Board Clause.** In accordance with Public Contract Code Section 10296, Contractor declares under penalty of perjury that no more than one final, unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of Contractor's failure to comply with an order of a federal court which orders Contractor to comply with an order of the national Labor Relations Board.

**Nondiscrimination Clause.** During the performance of this contract, the recipient, Contractor and its subcontractors shall not deny the contract's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age (over 40), or sex. Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination. Contractor shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12900 et seq.), the regulations promulgated thereunder (California Administrative Code, Title 2, Sections 7285.0 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code Sections 11135 - 11139.5), and the regulations or standards adopted by the awarding State agency to implement such article. Contractor or recipient shall permit access by representatives of the Department of Fair Employment and Housing and the awarding State agency upon reasonable notice at any time during the normal business hours, but in no case less than 24 hours' notice, to such of its books, records, accounts, other sources of information and its facilities as said Department or Agency shall require to ascertain compliance with this clause. Recipient, Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. The Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

**Statement of Compliance.** The Contractor's signature affixed hereon and dated shall constitute a certification under penalty of perjury under the laws of the State of California that the Contractor has, unless exempted, complied with the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

**Performance Evaluation.** For consulting service agreements, Contractor's performance under this contract will be evaluated after completion. A negative evaluation will be filed with the Department of General Services.

**Availability of Funds.** Work to be performed under this contract is subject to availability of funds through the State's normal budget process.

**Audit Clause.** For contracts in excess of \$10,000, the contracting parties shall be subject to the examination and audit of the State Auditor for a period of three years after final payment under the contract. (Government Code Section 8546.7).

**Payment Retention Clause.** Ten percent of any progress payments that may be provided for under this contract shall be withheld per Public Contract Code Sections 10346 and 10379 pending satisfactory completion of all services under the contract.

**Reimbursement Clause.** If applicable, travel and per diem expenses to be reimbursed under this contract shall be at the same rates the State provides for unrepresented employees in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations. Contractor's designated headquarters for the purpose of computing such expenses shall be: \_\_\_\_\_

LSA Associates, Inc., 257 Park Place, Point Richmond, CA 94801

**Disabled Veteran Business Enterprise Participation Requirement Audit Clause.** Contractor or vendor agrees that the awarding department or its delegates will have the right to review, obtain, and copy all records pertaining to performance of the contract. Contractor or vendor agrees to provide the awarding department or its delegate access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees and inspecting and copying such books, records, accounts, and other material that may be relevant to a matter under investigation for the purpose of determining compliance with Public Contract Code Section 10115 et seq. Contractor or vendor further agrees to maintain such records for a period of three (3) years after final payment under the contract. Title 2 CCR Section 1896.75.

**Priority Hiring Considerations.** For contracts in excess of \$200,000, the Contractor shall give priority consideration in filling vacancies in positions funded by the contract to qualified recipients of aid under Welfare and Institutions Code Section 11200. (Public Contract Code Section 10353).

**Drug-Free Workplace Certification.** By signing this contract, the Contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the Contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
2. Establish a Drug-Free Awareness Program to inform employees about all of the following:
  - (a) The dangers of drug abuse in the workplace,
  - (b) The person's or organization's policy of maintaining a drug-free workplace.
  - (c) Any available counseling, rehabilitation and employee assistance programs, and
  - (d) Penalties that may be imposed upon employees for drug abuse violations.
3. Every employee who works on the proposed contract or grant:
  - (a) Will receive a copy of the company's drug-free policy statement, and
  - (b) Will agree to abide by terms of the company's statement as a condition of employment on the contract or grant

This contract or grant may be subject to suspension of payments or termination, or both, and the Contractor or grantee may be subject to debarment if the department determines that: (1) the Contractor or grantee has made a false certification, or (2) the Contractor or grantee violates the certification by failing to carry out the requirements noted above.

**Antitrust Claims.** In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. See Government Code Section 4552.

If an awarding body or public purchasing body received, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery. See Government Code Section 4553.

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action. See Government Code Section 4554.

**Americans With Disabilities Act.** By signing this contract, Contractor assures the state that it complies with the Americans With Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

**Corporate Qualifications To Do Business in California.** Contractor must be currently qualified to do business in California as defined by the Revenue & Taxation Code, Section 23101 unless exempted. Both domestic and foreign corporations (those incorporated outside of California) must be in good standing in order to be qualified to do business in California.

**Former State Employees:** a) For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. b) For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.

# Environmental Compliance Checklist

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do any of the actions included in the proposal require compliance with either the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), or both?

  X    
YES

        
NO

2. If you answered yes to # 1, identify the lead governmental agency for CEQA/NEPA compliance.

  City of Suisun    
Lead Agency

3. If you answered no to # 1, explain why CEQA/NEPA compliance is not required for the actions in the proposal.

4. If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws. Describe where the project is in the compliance process and the expected date of completion.

**Consistent with NEPA/CEQA guidelines for Habitat Restoration. We will initiate the process if project is approved.**

5. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?

        
YES

  X    
NO

If yes, the applicant must attach written permission for access from the relevant properly owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with **30** days of notification of approval.

6. Please indicate what permits or other approvals may be required for the activities contained in your proposal. Check all boxes that apply.

**LOCAL**

Conditional use permit  
 Variance  
 Subdivision Map Act approval  
 Grading permit  
 General plan amendment  
 Specific plan approval  
 Rezone  
 Williamson Act Contract  
 cancellation  
 Other \_\_\_\_\_  
 (please specify)  
 None required

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
XX  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**STATE**

CESA Compliance  
 Streambed alteration permit  
 CWA § 401 certification  
 Coastal development permit  
 Reclamation Board approval  
 Notification  
 Other \_\_\_\_\_  
 (please specify)  
 None required

XX (CDFG)  
 \_\_\_\_ (CDFG)  
XX (RWQCB)  
 \_\_\_\_ (Coastal Commission/BCDC)  
 \_\_\_\_  
 \_\_\_\_ (DPC, BCDC)

**FEDERAL**

ESA Consultation  
 Rivers & Harbors Act permit  
 CWA § 404 permit  
 Other \_\_\_\_\_  
 (please specify)  
 None required

XX (USFWS)  
 \_\_\_\_ (ACOE)  
XX (ACOE)  
 \_\_\_\_\_  
 \_\_\_\_\_

DPC = Delta Protection Commission  
 CWA = Clean Water Act  
 CESA = California Endangered Species Act  
 USFWS = U.S. Fish and Wildlife Service  
 ACOE = U.S. Army Corps of Engineers

ESA = Endangered Species Act  
 CDFG = California Department of Fish and Game  
 RWQCB = Regional Water Quality Control Board  
 BCDC = Bay Conservation and Development Comm.

## Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do the actions in the proposal involve physical changes to the land (i.e. grading, planting vegetation, or breaching levees) or restrictions in land use (i.e. conservation easement or placement of land in a wildlife refuge)?

XX  
YES

        
NO

2. If NO to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only).

3. If YES to # 1, what is the proposed land use change or restriction under the proposal?

Removal of fill material to revitalize marsh and tidal zones.

4. If YES to # 1, is the land currently under a Williamson Act contract?

        
YES

XX  
NO

5. If YES to # 1, answer the following:

Current land use

public preserve

Current zoning

unknown

Current general plan designation

unknown

6. If YES to #1, is the land classified as Prime Farmland, Farmland of Statewide Importance or Unique Farmland on the Department of Conservation Important Farmland Maps?

        
YES

XX  
NO

        
DON'T KNOW

7. If YES to # 1, how many acres of land will be subject to physical change or land use restrictions under the proposal?

11.4

8. If YES to # 1, is the property currently being commercially farmed or grazed?

        
YES

XX  
NO

9. If YES to #8, what are

the number of employees/acre       

the total number of employees



**ASSURANCES - CONSTRUCTION PROGRAMS**

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.


**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

**NOTE:** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal interest in the title of real property in accordance with awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. 554728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (32 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. 551501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL		TITLE	
		Project Coordinator	
APPLICANT ORGANIZATION		DATE SUBMITTED	
Suisun Marsh Natural History Assoc./NGS		May 30, 2000	

## INSTRUCTIONS FOR THE SF-424C

Public reporting burden for this collection of information is estimated to average 180 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0041), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

This sheet is to be used for the following types of applications: (1) "New" (means a new [previously unfunded] assistance award); (2) "Continuation" (means funding in a succeeding budget period which stemmed from a prior agreement to fund); and (3) "Revised" (means any changes in the Federal Government's financial obligations or contingent liability from an existing obligation). If there is no change in the award amount, there is no need to complete this form. Certain Federal agencies may require only an explanatory letter to effect minor (no cost) changes. If you have questions, please contact the Federal agency.

**Column a.** - If this is an application for a "New" project, enter the total estimated cost of each of the items listed on lines 1 through 16 (as applicable) under "COST CLASSIFICATION."

If this application entails a change to an existing award, enter the eligible amounts *approved under the previous award* for the items under "COST CLASSIFICATION."

**Column b.** - If this is an application for a "New" project, enter that portion of the cost of each item in Column a. which is *not* allowable for Federal assistance. Contact the Federal agency for assistance in determining the allowability of specific costs.

If this application entails a change to an existing award, enter the adjustment [+ or -] to the previously approved costs (from column a.) reflected in this application.

**Column.** - This is the net of lines 1 through 16 in columns "a." and "b."

Line 4 - Enter estimated basic engineering fees related to construction (this includes start-up services and preparation of project performance work plan).

Line 5 - Enter estimated engineering costs, such as surveys, tests, soil borings, etc.

Line 6 - Enter estimated engineering inspection costs.

Line 7 - Enter estimated costs of site preparation and restoration which are not included in the basic construction contract.

Line 9 - Enter estimated cost of the construction contract.

Line 10 - Enter estimated cost of office, shop, laboratory, safety equipment, etc. to be used at the facility, if such costs are not included in the construction contract.

Line 11 - Enter estimated miscellaneous costs.

Line 12 - Total of items 1 through 11.

Line 13 - Enter estimated contingency costs. (Consult the Federal agency for the percentage of the estimated construction cost to use.)

Line 14 - Enter the total of lines 12 and 13.

Line 15 - Enter estimated program income to be earned during the grant period, e.g., salvaged materials, etc.

Line 16 - Subtract line 15 from line 14.

Line 17 - This block is for the computation of the Federal share. Multiply the total allowable project costs from line 16, column "c." by the Federal percentage share (this may be up to 100 percent; consult Federal agency for Federal percentage share) and enter the product on line 17.

Line 1 - Enter estimated amounts needed to cover administrative expenses. Do not include costs which are related to the normal functions of government. Allowable legal costs are generally only those associated with the purchases of land which is allowable for Federal participation and certain services in support of construction of the project.

Line 2 - Enter estimated site and right(s)-of-way acquisition costs (this includes purchase, lease, and/or easements).

Line 3 - Enter estimated costs related to relocation advisory assistance, replacement housing, relocation payments to displaced persons and businesses, etc.

**BUDGET INFORMATION- Construction Programs**

**NOTE:** Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ 260,848 .00	\$ 0 .00	\$ 260,848 .00
2. Land, structures, rights-of-way, appraisals. etc.	\$ 0 .00	\$ 0 .00	\$ 0 .00
3. Relocation expenses and payments	\$ 0 .00	\$ 0 .00	\$ 0 .00
4. Architectural and engineering fees	\$ 0 .00	\$ 0 .00	\$ 0 .00
5. Other architectural and engineering fees	\$ 0 .00	\$ 0 .00	\$ 0 .00
6. Project inspection fees	\$ 56,674 .00	\$ 0 .00	\$ 56,674 .00
7. Site work	\$ 662,721 .00	\$ 0 .00	\$ 662,721 .00
8. Demolition and removal	\$ 0 .00	\$ 0 .00	\$ 0 .00
9. Construction	\$ 0 .00	\$ 0 .00	\$ 0 .00
10. Equipment	\$ 0 .00	\$ 0 .00	\$ 0 .00
11. Miscellaneous (Endowment)	\$ 15,000 .00	\$ 0 .00	\$ 15,000 .00
12. SUBTOTAL (sum of lines 1-11)	\$ 995,243 .00	\$ 0 .00	\$ 995,243 .00
13. Contingencies	\$ 0 .00	\$ 0 .00	\$ 0 .00
14. SUBTOTAL	\$ 995,243 .00	\$ 0 .00	\$ 995,243 .00
15. Project (program) income (long term return)	\$ 741,000 .00	\$ 0 .00	\$ 741,000 .00
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ 254,243 .00	\$ 0 .00	\$ 254,243 .00
<b>FEDERAL FUNDING</b>			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.	Enter eligible costs from line 16c Multiply X <u>100</u> % (Need #14 to initiate restoration)		\$ 995,243 .00

## INSTRUCTIONS FOR THE SF-424

Public reporting burden for this collection of information is estimated to average 45 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0043), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

This is a standard form used by applicants as a required facesheet for preapplications and applications submitted for Federal assistance. It will be used by Federal agencies to obtain applicant certification that States which have established a review and comment procedure in response to Executive Order 12372 and have selected the program to be included in their process, have been given an opportunity to review the applicant's submission.

- | Item: | Entry:  | Item: | Entry:   |
|-------|---|-------|--|
| 1.    | Self-explanatory.   | 12.   | List only the largest political entities affected (e.g., State, counties, cities).   |
| 2.    | Date application submitted to Federal agency (or State if applicable) and applicant's control number (if applicable).   | 13.   | Self-explanatory.  |
| 3.    | State use only (if applicable).   | 14.   | List the applicant's Congressional District and any District(s) affected by the program or project.  |
| 4.    | If this application is to continue or revise an existing award, enter present Federal identifier number. If for a new project, leave blank.   | 15.   | Amount requested or to be contributed during the first funding budget period by each contributor. Value of in-kind contributions should be included on appropriate lines as applicable. If the action will result in a dollar change to an existing award, indicate <u>only</u> the amount of the change. For decreases, enclose the amounts in parentheses. If both basic and supplemental amounts are included, show breakdown on an attached sheet. For multiple program funding, use totals and show breakdown using same categories as item 15. |
| 5.    | Legal name of applicant, name of primary organizational unit which will undertake the assistance activity, complete address of the applicant, and name and telephone number of the person to contact on matters related to this application.  | 16.   | Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process.  |
| 6.    | Enter Employer Identification Number (EIN) as assigned by the Internal Revenue Service.   | 17.   | This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of debt include delinquent audit disallowances, loans and taxes.  |
| 7.    | Enter the appropriate letter in the space provided.   | 18.   | To be signed by the authorized representative of the applicant. A copy of the governing body's authorization for you to sign this application as official representative must be on file in the applicant's office. (Certain Federal agencies may require that this authorization be submitted as part of the application.)  |
| 8.    | Check appropriate box and enter appropriate letter(s) in the space(s) provided:<br><br>-- "New" means a new assistance award.<br><br>-- "Continuation" means an extension for an additional funding budget period for a project with a projected completion date.<br><br>-- "Revision" means any change in the Federal Government's financial obligation or contingent liability from an existing obligation. |       |  |
| 9.    | Name of Federal agency from which assistance is being requested with this application.  |       |  |
| 10.   | Use the Catalog of Federal Domestic Assistance number and title of the program under which assistance is requested.   |       |  |
| 11.   | Enter a brief descriptive title of the project. If more than one program is involved, you should append an explanation on a separate sheet. If appropriate (e.g., construction or real property projects), attach a map showing project location. For preapplications, use a separate sheet to provide a summary description of this project.   |       |  |

# APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

<b>1. TYPE OF SUBMISSION</b> Application <input checked="" type="checkbox"/> Construction <input type="checkbox"/> Non-Construction Preapplication <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction		<b>2. DATES SUBMITTED</b> May 30, 2000		Applicant Identifier																											
		<b>3. DATE RECEIVED BY STATE</b>		State Application Identifier																											
		<b>4. DATE RECEIVED BY FEDERAL AGENCY</b>		Federal Identifier																											
<b>5. APPLICANT INFORMATION</b>																															
<b>Legal Name:</b> Suisun Marsh Natural Hist. Assoc./NGS			<b>Organizational Unit:</b> Non-profit/Profit																												
<b>Address (give city, county, State, and zip code):</b> 19221 Red Hill Mine Road Pine Grove, CA 95665			<b>Name and telephone number of person to be contacted on matters involving this application (give area code):</b> Duke Foster, 209-296-5657																												
<b>6. EMPLOYER IDENTIFICATION NUMBER (EIN):</b> 68-0230619			<b>7. TYPE OF APPLICANT: (enter appropriate letter in box)</b> <div style="display: flex; justify-content: space-between;"> <div>           A. State B. County C. Municipal D. Township E. Interstate F. Intermunicipal G. Special District         </div> <div>           H. Independent School Dist. I. State Controlled Institution of Higher Learning J. Private University K. Indian Tribe L. Individual M. Profit Organization N. Other (Specify) _____         </div> </div> <div style="text-align: right; margin-top: -20px;"><input checked="" type="checkbox"/> N</div>																												
<b>8. TYPE OF APPLICATION:</b> <div style="display: flex; justify-content: space-around;"> <span>New <input type="checkbox"/></span> <span>Continuation <input type="checkbox"/></span> <span>Revision <input type="checkbox"/></span> </div> <b>If Revision, enter appropriate letter(s) in box(es)</b> <input type="checkbox"/> <input type="checkbox"/> <div style="display: flex; justify-content: space-between; font-size: small;"> <span>A. Increase Award</span> <span>B. Decrease Award</span> <span>C. Increase Duration</span> </div> <div style="display: flex; justify-content: space-between; font-size: small;"> <span>D. Decrease Duration</span> <span>Other (specify): _____</span> </div>			<b>9. NAME OF FEDERAL AGENCY</b> CVPIA - USF&WL																												
<b>10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:</b> <div style="text-align: center;"> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> - <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> </div> <b>TITLE</b>			<b>11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:</b> Peytonia Slough Restoration																												
<b>12. AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.):</b> Suisun, Solano, CA																															
<b>13. PROPOSED PROJECT</b>		<b>14. CONGRESSIONAL DISTRICTS OF</b>																													
<b>Start Date</b> 4/01	<b>Ending Date</b> 10/02	<b>a. Applicant</b> 7		<b>b. Project</b> 7																											
<b>15. ESTIMATED FUNDING</b>		<b>16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?</b>																													
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">a. Federal</td> <td style="width: 10%;">\$</td> <td style="width: 40%; text-align: center;">995,243</td> <td style="width: 10%; text-align: right;">00</td> </tr> <tr> <td>b. Applicant</td> <td>\$</td> <td style="text-align: center;">0</td> <td style="text-align: right;">00</td> </tr> <tr> <td>c. State</td> <td>\$</td> <td style="text-align: center;">0</td> <td style="text-align: right;">00</td> </tr> <tr> <td>d. Local</td> <td>\$</td> <td style="text-align: center;">0</td> <td style="text-align: right;">00</td> </tr> <tr> <td>e. Other</td> <td>\$</td> <td style="text-align: center;">0</td> <td style="text-align: right;">00</td> </tr> <tr> <td>f. Program Income</td> <td>\$</td> <td style="text-align: center;">741,000</td> <td style="text-align: right;">00</td> </tr> <tr> <td>g. TOTAL</td> <td>\$</td> <td style="text-align: center;">254,243</td> <td style="text-align: right;">00</td> </tr> </table>		a. Federal	\$	995,243	00	b. Applicant	\$	0	00	c. State	\$	0	00	d. Local	\$	0	00	e. Other	\$	0	00	f. Program Income	\$	741,000	00	g. TOTAL	\$	254,243	00	<b>a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:</b>  DATE _____  <b>b. No.</b> <input type="checkbox"/> PROGRAM IS NOT COVERED BY E.O. 12372 <input checked="" type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW	
a. Federal	\$	995,243	00																												
b. Applicant	\$	0	00																												
c. State	\$	0	00																												
d. Local	\$	0	00																												
e. Other	\$	0	00																												
f. Program Income	\$	741,000	00																												
g. TOTAL	\$	254,243	00																												
		<b>17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?</b> <input type="checkbox"/> Yes If "Yes," attach an explanation. <input checked="" type="checkbox"/> No																													
<b>18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.</b>																															
<b>a. Type Name of Authorized Representative</b> Duke Foster		<b>b. Title</b> Project Coordinator		<b>c. Telephone Number</b> 209-296-5657																											
<b>d. Signature of Authorized Representative</b> 		<b>e. Date Signed</b> May 30, 2000																													

Previous Edition Usable

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Standard Form 424 (Rev. 7-97)

Prescribed by OMB Circular A-102



# BIDDER'S BOND

**WE ARE A NONPROFIT ORGANIZATION.  
UPON A WARD OF FUNDS WE WILL SOLICIT BIDS  
FOR CONTRACT WORK.**

**NON-COLLUSION AFFIDAVIT, BIDDERS BOND AND PROOF OF  
CONTRACTOR'S LICENSE WILL BE SECURED AND COMPLETED  
AT THAT TIME. THANK YOU**

THE CONDITION OF THIS OBLIGATION IS SUCH,

That whereas the Principal has submitted the above-mentioned bid to the State of California, as aforesaid, for certain construction specifically described as follows, for which bids are to be opened at

\_\_\_\_\_, California, on \_\_\_\_\_  
 (Insert name of city where bids will be opened) (Insert date of bid opening)  
 for \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Copy here the ~~exact~~ description of work, including location, as it appears on the proposal)

NOW, THEREFORE, If the aforesaid Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed form, in accordance with the bid, and files two bonds with the Department, one to guarantee faithful performance and the other to guarantee payment for labor materials, as required by law, then this obligation shall be null and void; otherwise, it shall be and remain in full force and virtue.

IN WITNESS WHEREOF, We have hereunto set our hands and seals on this \_\_\_\_\_  
 day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_, [Seal]

\_\_\_\_\_, [Seal]

\_\_\_\_\_, [Seal]

Principal

\_\_\_\_\_, [Seal]

\_\_\_\_\_, [Seal]

\_\_\_\_\_, [Seal]

Surety

NOTE: Signatures of those executing for the surety must be properly acknowledged





**NONCOLLUSION AFFIDAVIT TO RE EXECUTED BY  
BIDDER AND SUBMITTED WITH BID FOR PUBLIC WORKS**

***WE ARE A NON-PROFIT ORGANIZATION.  
UPPONA WARD OF FUNDS WE WILL SOLICIT BIDS  
FOR CONTRACT WORK.***

***NON-COLLUSION AFFIDAVIT, BIDDERS BOND AND PROOF OF  
CONTRACTOR LICENSE WILL BE SECURED AND COMPLETED  
AT THAT TIME. THANK YOU***

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation: that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true: and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

DATED: \_\_\_\_\_

By— \_\_\_\_\_  
(person signing for bidder)

Subscribed and sworn to before me on

\_\_\_\_\_

\_\_\_\_\_

(Notary Public)

(Notarial Seal)

10. Will the applicant acquire any interest in land under the proposal (fee title or a conservation easement)?

YES

XX\_  
NO

11. What entity/organization will hold the interest? Suisun Marsh Natural History Association  
(SMNHA)

**12. If YES to # 10, answer the following:**

Total number of acres to be acquired under proposal

Number of acres to be acquired in fee

**Number of acres to be subject to conservation easement**

**13. For all proposals involving physical changes to the land or restriction in land use, describe what entity or organization will:**

**manage the property**

SMNHA

provide operations and maintenance services

SMNHA

conduct monitoring

SMNH:A

14. For land acquisitions (fee title or easements), will existing water rights also be acquired?

YES

**NO**

**15. Does the applicant propose any modifications to the water right or change in the delivery of the water?**

XX

YES

**NO**

16. If YES to #15, describe Implement tidal prism and hydraulic head for  
tidal inflow to revitalize marsh and slough conditions

## Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

Do the actions in the proposal involve physical changes to the land (i.e. grading, planting vegetation, or breaching levees) or restrictions in land use (i.e. conservation easement or placement of land in a wildlife refuge)?

XX  
YES

        
NO

If NO to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only).

If YES to # 1, what is the proposed land use change or restriction under the proposal?

Removal of fill material to revitalize marsh and tidal zones.

If YES to # 1, is the land currently under a Williamson Act contract?

        
YES

XX  
NO

If YES to # 1, answer the following:

Current land use

public preserve

Current zoning

unknown

Current general plan designation

unknown

If YES to #1, is the land classified as Prime Farmland, Farmland of Statewide Importance or Unique Farmland on the Department of Conservation Important Farmland Maps?

        
YES

XX  
NO

DON'T KNOW

If YES to # 1, how many acres of land will be subject to physical change or land use restrictions under the proposal?

11.4

If YES to # 1, is the property currently being commercially farmed or grazed?

        
YES

XX  
NO

If YES to #8, what are

the number of employees/acre                     

the total number of employees